

The Mining Journal, RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1756.—Vol. XXXIX.

LONDON, SATURDAY, APRIL 17, 1869.

{STAMPED...SIXPENCE,
{UNSTAMPED...FIVEPENCE

MR. JAMES CROFTS, STOCK AND SHAREBROKER, No. 1, FINCH LANE, CORNHILL.

(Established 1842.)
Mr. Crofts transacts business in the way of PURCHASE or SALE of every description of stocks, but particularly BRITISH MINES, at net prices. All orders meet with the utmost punctuality, and advice given as to the nature and eligibility of INVESTMENTS when required.

GREAT ROYALTON.—The operations at this mine, as will be seen from the agent's report, are being pushed on with all dispatch, and rich tin stuff is being raised from the engine-shaft. Another shaft is in course of sinking on the great north lode, respecting which Captain Parkyn writes:—"I am sinking a shaft on the great lode, 150 fms. from the engine-shaft, and I expect to cut it every day. If we cut the lode rich here the mine will be ten times more valuable than ever reported. The reason of my doing this is, since I came home from London I have found some very rich stones of tin on the run of this lode, and I am confident we have a splendid lode here." The shares have again advanced, and are now 15s., but they cannot long remain at this low price.

MR. JOHN BUMPUS, 44, THREADNEEDLE STREET,
has FOR SALE the following shares, free of commission:—
55 Anglo-Brazilian, 9s 3d
20 Brynpostig, 25s. 9d.
20 Chiverton, £2 18s. 9d.
15 Chiverton Moor, £3 13s.
50 Carn Camborne, 11s.
100 Chontales, 27s. 9d.
50 Don Pedro, £4 9s.
10 East Caradon, £7 1/2.
15 East Lovell, £5 18s. 9d.
25 E. Grenville, £5 11s. 3d.
100 Frontino, 22s. 9d.
10 Great Laxey, £19 1/2.
35 Gr. North Laxey, 26s.
50 Gen. Brazilian, 14s. 9d.
5 Herodsfoot, £47.
15 Marke Valley, £8 7/2.
20 Min. Bottom, £3 8s. 9d.
5 No. Levant, £10 1/2.
50 No. Treskerby, 16s. 9d.
25 New Lovell, £2 7/2.
15 Penhall, £6 1/2.
25 Pestarena, 22s. 6d.
50 Port Phillip, 31s.
25 Prince of Wales, 24s. 3d.
50 Rossa Grande, 25s. 6d.
100 Scottish Australian, 20s. 6d.
50 Sao Vicente, 6s. 6d.
50 South Condurrow, 31s.
25 South Darren, 38s. 6d.
5 St John del Rey, £16 1/2.
100 Taquaril, 11s. 6d.
5 Wt. Chiverton, £50 1/2.
5 West Drake Walls, 6s.
50 West Godolphin, 30s. 6d.
20 Wheal Uny, £3 7/2.
25 W. Kitts (St. Agnes), £5 1/2.
1 W. Wh. Seton, £192.
50 Yudanamutana, 53s.

MR. WILLIAM WARD, STOCK AND SHAREDEALER, No. 29, THREADNEEDLE STREET, LONDON, E.C.

MR. THOMAS SPARGO, STOCK AND SHAREDEALER,
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

JOHN RILEY, (SWORN) STOCK AND SHAREBROKER,
48, THREADNEEDLE STREET, LONDON, E.C.
Bankers: London and Westminster, Lothbury.

MR. THOMAS THOMPSON, MINING OFFICES,
12, OLD JEWRY CHAMBERS, LONDON, E.C.

MR. J. B. REYNOLDS, STOCK AND SHAREDEALER,
ETHELBURGA HOUSE, BISHOPSGATE STREET WITHIN, E.C.
Established Eleven Years.
Bankers: City Bank, London, E.C.

MR. JAMES HUME, STOCK AND SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.

Has BUSINESS in—
20 Chiverton, £3.
5 Wt. Chiverton, £50 1/2.
50 Prince of Wales, 24s. 3d.
10 Great Vor, £17 1/2.
50 Chontales, 27s. 9d.
50 No. Treskerby, 17s. 6d.
20 W. Drake Walls, 6s. 6d.
J. Hume's "Circular" for April is now ready, and should be consulted by all before investing. Bankers: The London Joint-Stock Bank.

MR. J. H. COCK, STOCK AND MINING SHAREDEALER,
74, OLD BROAD STREET, LONDON, E.C.

Business transacted in all the leading market mines, also in those requiring negotiation.
J. H. C., having visited Cornwall recently, is, from his sources of information, prepared to advise his clients what they should buy, sell, or avoid.
SPECIAL in the Great Northern Manganese Company (Limited), also in Boscuan, New Lovell, Wheal Owles, South Condurrow, East Carn Brea, North Levant, and Ding Dong.

MR. T. ROSEWARNE, 81, OLD BROAD STREET,
LONDON, E.C.

T. R. has BUSINESS in the following mines, at close market prices:—
Devon Consols. East Caradon. West Drake Walls.
Drake Walls. Prince of Wales. West Seton.
FRONTINO AND BOLIVIA.—No doubt many of my friends will realise at present prices, 20s. to 22s., after buying them at 8s., although at the same time I believe the shares will go much higher.
I can recommend the three mines which will, in my opinion, pay as well as the Frontino has done. I advised the purchase of Buller's shares at £9 to £10, and now they are £18 to £20, and very likely to go to £100 if the lode is cut good at the junction at Hocking's shaft. The stops are worth now £30 to £35 per fathom. These shares have been £1100 per share, and why not again?
BEDFORD CONSOLS shares should be bought at present price, 14s. to 16s., and only in 4000 shares, with ample machinery on the mine, where £12,000 has been spent. There are no liabilities, but money in hand to go on with, it is rarely such an opportunity offers. Before parties purchase they should send an agent to inspect the mine.
CHIVERTON MOOR shares are flat, £3 1/2 to £3 3/4, as it is thought by some parties that the lode is cut in the north cross-cut at Cloggs's shaft; I am of opinion it is not. The old lode has very much improved (see agents report in the Journal). Shares should be bought.
CHONTALES.—I can recommend these shares for time on, below market price. Money advanced to any extent on good mining shares.
Office hours Ten to Four. Bankers: Bank of England.

MR. E. J. BARTLETT, STOCK AND SHAREDEALER,
No. 30, GREAT ST. HELEN'S, LONDON, E.C., has SPECIAL BUSINESS in West Godolphin, Summer Hill, North Pool, South Condurrow, South Merilyn, New Lovell, North Levant, Bryn Gwilog, East Rosewarne, East Lovell, Spearne Moor, East Carn Brea, North Treskerby, Wheal Agar, and Calbeck Fells.
Holders of Stock difficult of sale in the open market may find purchasers on application to the above.

* SOUTH MERILYN.—E. J. B. directs special attention to the report published this day in these columns. At present prices the shares are specially recommended, and should be bought at once.
WEST GODOLPHIN, NORTH POOL, and SOUTH CONDURROW.—Having recently inspected these mines, I shall be happy to furnish any information relating to present and future prospects.
BUYER of West Godolphin, Wheal Agar, Great South Chiverton, and Calbeck Fells shares.

MR. WILLIAM MARLBOROUGH, 1, GREAT ST. HELEN'S,
BISHOPSGATE STREET, LONDON, E.C. (Established 14 years), has FOR SALE the following shares, at net prices:—
50 Anglo-Brazilian, 7s. 9d.
20 Brynpostig, 25s. 6d.
20 Don Pedro, £3 7s. 6d.
20 Drake Walls, 21s. 9d.
25 Chontales, 27s. 9d.
15 Chiverton, £3.
5 Cwm Darren, £2 1/2.
10 East Caradon, £7 1/2.
10 E. Grenville, £5 11s. 3d.
5 East Lovell, £9 1s. 3d.
15 E. Carn Brea, 9s. 6d.
50 Frontino, 21s. 6d.
50 Gen. Brazilian, 14s. 9d.
20 Gt. No. Laxey, £1 1/2.
5 Great Vor, £17 1/2.
10 New Lovell, £2 16s. 3d.
5 No. Levant, £10 1/2.
20 North Crofty, 21s. 9d.
20 No. Treskerby, 16s. 9d.
15 Pestarena, 22s. 6d.
40 Prince of Wales, 24s. 3d.
50 Redmoor, 4s. 9d.
10 Rosewall Hill, 31s. 9d.
20 So. Herodsfoot, 21s. 9d.
100 Santa Clara, 14s. 9d.
50 South Merilyn, 18s.
30 So. Condurrow, 29s. 6d.
5 Tincroft, £18 1/2.
50 Tamar Valley, 13s. 6d.
20 Taquaril, 9s. 9d. pm.
2 Van, £22 1/2.
1 West Chiverton, £51.
25 West Godolphin, 34s.
30 Wheal Crebor, 10s. 9d.
15 Wheal Uny, £2 3/4.
4 Wh. Mary Ann, £17 1/2.

BUYER of South Darren, Great South Toigins, and Providence.
MR. GEORGE BUDGE, STOCK AND SHAREDEALER,
No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 20 years), is a SELLER at net prices of:—
100 East Chiverton; 25 South Herodsfoot, 25s.; 50 Prince of Wales, 23s. 9d.; 60 West Chiverton, £2 1/2; 40 North Treskerby, 18s.; 60 West Godolphin; 20 Wheal Grenville, 45s. 6d.; 100 North Laxey, 12s.; 150 Tin Valley; 80 South Carn Brea; 5 Great Vor, £18; 55 Great North Laxey, 23s. 2d.; 55 St. John del Rey; 50-drea, £6; 120 West Prince of Wales, 5s. 6d.; 5 Polberrow, £2; 50 Tamar Valley, 12s.; 90 Redmoor, 4s. 3d.; 15 Mace-y-Safn, £20; 80 Imperial Mining; 45 Cuddra, 56s. 9d.; 150 Anglo-Brazilian, 9s. 9d.; 300 Taquaril; 150 General Brazilian.
SPECIAL BUSINESS in the Van Mine.

CORNISH AND FOREIGN MINES— TO SHAREHOLDERS AND OTHERS.

PETER WATSON'S "WEEKLY MINING CIRCULAR AND SHARE LIST—SYNOPSIS OF CORNISH AND DEVON MINES," of Friday, April 16, No. 528, Vol. XI., price 6d. each copy, forwarded on application, contains information on the following mines:—
The Van. Wheal Trelawny. East New Lovell.
Great Wheal Vor. West Wheal Frances. Cook's Kitchen.
North Wheal Crofty. West Drake Walls. West Great Work.
East Wheal Seton. Great Western. South Great Work.
East Wheal Lovell. New Wheal Lovell. Drake Walls.
With Special Notice on the Great Rock Lead Mine, and Remarks on the Tin Trade, &c.

INVESTMENT OR SPECULATION.—A SELECTED LIST OF RAILWAYS, BANKS, MINES, COLONIAL SECURITIES, FOREIGN GOVERNMENT BONDS, &c., forwarded to bona fide investors on application, in addition to the high rate of interest many of the above are paying, there is now every probability of a great rise in market value.

PETER WATSON, STOCK AND SHAREDEALER,
79, OLD BROAD STREET, LONDON
(three doors only from Hercules' passage, entrance to the Stock Exchange).
Twenty-four years' experience.
(Two in Cornwall and Twenty-two in London.)
Bankers: The Alliance Bank, and the Union Bank of London.
References given and required (when necessary) in all the principal towns of the United Kingdom.

THE LONDON DAILY RECORD—STOCK AND SHARE LIST—STOCK EXCHANGE SECURITIES. Published every evening at 5 o'clock. It contains the latest prices of railways, banks, mines, foreign stocks and bonds, financial, insurance, and miscellaneous shares, remarks on the daily rise and fall in prices, with advice as to purchase and sales. Annual subscription, £1 1s.; by post, £2 5s.; monthly subscription—by post, 4s.; single copy, 1d.; by post, 2d.

PETER WATSON, Stock and Sharedealer, 79, Old Broad-street, London.

MR. EDWARD COOKE, STOCK AND MINING SHAREDEALER,
76, OLD BROAD STREET
(and Mining Exchange), LONDON, E.C.
Shares in all the dividend and best progressive British mines dealt in. The prospectus of the Great Rock Lead Mine to be had on application.
References given.
Price-list sent free on application.
Bankers: Alliance Bank.

MR. W. H. CUEL, L,
No. 42, CORNHILL, LONDON, E.C.

MR. G. D. SANDY, STOCK AND SHAREDEALER,
48, THREADNEEDLE STREET, LONDON, E.C.
Daily Price List on application post free. References exchanged.

MR. WILLIAM SEWARD, STOCK AND MINING SHARE BROKER,
19, THROGMORTON STREET, LONDON, E.C.
Every description of shares BOUGHT and SOLD at the best market prices.

Established Twelve Years.—"Twenty-four Years' Experience."
MR. F. W. MANSELL, 44, THREADNEEDLE STREET,
LONDON, has the following SHARES FOR SALE, for cash or account, at net prices:—

15 Chiv. Moor, £3 8s. 9d.	15 Gt. Laxey, £19 1/2.	15 Tincroft, £18 1/2.
50 Chiverton, £2 1/2.	15 No. Laxey, £2 12s. 3d.	5 Wt. Chiverton, £51 1/2.
50 Drake Walls, 22s. 6d.	15 North Downs, 12s. 6d.	2 Wheal Seton, £27.
17 East Grenville, £5 1/2.	75 No. Treskerby, 18s. 6d.	65 Cape Copper, £13.
25 East Caradon, £7 1/2.	150 Prince of Wales.	115 Chontales, £1 10s.
5 East Basset, £7 1/2.	50 Redmoor, 4s. 6d.	100 Gen. Brazilian, 16s. 6d.
10 Great Vor, £17 1/2.	50 So. Condurrow, 32s.	10 St John del Rey, £18 1/2.
5 SOUTH CONDURROW.—With reserves of tin, worth over £20,000, already discovered, surely it is time to BUY the shares. At present price the mine is selling for £9500. Within six months the reserves will be valued at twice the above amount.		

Shares may be bought for future payment. Every facility afforded.
Bankers: London Joint-Stock Bank.

INVESTMENT FOR CAPITAL.

MR. F. W. MANSELL, in February, 1868, under this heading, recommended the under-mentioned mines for immediate purchase:—

Wheal Emily Henrietta, at £10, present price £20, have been £40.
Wheal Grenville, at 30s., present price 55s.
New Wheal Lovell, at 20s., present price 55s., have been 70s.
Again, in October, 1868, the following were strongly recommended for immediate purchase:—
East Caradon, at £2 1/2, present price £7 1/2, have been £10.
North Treskerby, at 7s. 6d., present price 17s. 6d., have been 20s.
Great Retailack, at £2 1/2, present price £2 1/2, have been £3 1/2.
South Condurrow, at 19s., present price 30s. to 32s. 6d.
There is no class of investment pays so well as British mines if judiciously selected. To command this, competent practical agents are retained by Mr. F. W. MANSELL to specially report upon all promising mineral properties in the United Kingdom.
To be had on application, a Selected List of Mines, both dividend and progressive.—44, Threadneedle-street, London.

MATTHEW GREENE, STOCK AND SHAREDEALER,
14, PINNER'S HALL, OLD BROAD STREET, LONDON, E.C.

BUYS and SELLS Consols, Railway and Mining Shares at the closest market prices. Daily Price Lists on application.
HORRABRIDGE CONSOLS.—Mr. GREENE recommends immediate applications for shares in this highly-promising tin mine. A limited number of shares can be secured on application to M. G.

VAN MINE AND DISTRICT.—M. G. is in a position to give reliable information, having conducted for years past mining operations in this rich lead-bearing district.
TAMAR VALLEY SILVER-LEAD and NEW CLIFFORD COPPER MINES are both looking well. See reports in this day's Journal.
Mr. GREENE is now in Wales on a tour of inspection, and will return on the 20th instant.

MR. HENRY MANSELL, 44, THREADNEEDLE STREET,
LONDON, has FOR SALE the following shares, free of commission:—
50 Drake Walls, 22s. 6d.
20 Great So. Toigins, 27s. 6d.
60 So. Condurrow, 32s.
40 East Grenville, £5 1/2.
25 Taquaril, 4s. 3d. pm.
20 Wheal Grenville, 54s.
50 East Carn Brea, 9s.
10 West Basset, 36s. 6d.
150 Prince of Wales, 24s. 6d.
50 Redmoor, 5s.
50 South Merilyn, 18s.
100 Chontales, £13.
20 East Caradon, £7 1/2.
5 Tincroft, £19.
10 West Basset, 36s. 6d.
50 Tamar Valley, 13s. 6d.
20 Taquaril, 9s. 9d. pm.
2 Van, £22 1/2.
1 West Chiverton, £51.
25 West Godolphin, 34s.
30 Wheal Crebor, 10s. 9d.
15 Wheal Uny, £2 3/4.
4 Wh. Mary Ann, £17 1/2.

TIN VALLEY MINE.—Mr. HENRY MANSELL has BUSINESS both as BUYER and SELLER of the shares in this valuable property.
SOUTH CONDURROW SHARE.—These shares should be bought at once at the present price, as they will double in value shortly.
SOUTH MERILYN.—Mr. H. M. recommends an immediate purchase of these shares.
Bankers: London Joint-Stock Bank.

INVESTMENT, LOAN, AND BANK AGENCY.
Established 1839.

Every information afforded to Capitalists, Trustees, and others who seek Investments of a strictly eligible and safe character.
Investments may be effected in Foreign Stocks, Colonial Bonds, Railway, Mine, and other Shares, subject to quarterly, half-yearly, or annual payments, upon advantageous terms.

LOANS granted, for one year or any shorter period, on Stocks and Shares having a market value.
Five per cent. interest allowed upon DEPOSITS of all amounts.
Money and Finance Agency Business generally undertaken.
RICHARD TAYLOR AND COMPANY.
No. 12, Clement's-lane, Lombard-street, London, E.C.

GOLD AND SILVER MINING SHARES.
RICHARD TAYLOR AND COMPANY are DEALERS in the FOLLOWING SHARES at close market prices, free of commission, either for cash or time on—

ANGLO-ARGENTINE.	FRONTINO AND BOLIVIA.	ROSSA GRAYDE.
ANGLO-BRAZILIAN.	GENERAL BRAZILIAN.	SAO VICENTE.
CHONTALES.	PESTARENA.	ST. JOHN DEL REY.
DON PEDRO.	PORT PHILLIP.	TAGUARIL.
Investment, Loan and Bank Agency.		UNITED MEXICAN.

No. 12, Clement's-lane, Lombard-street, London, E.C.

MR. T. P. THOMAS, MINING AGENT, 77, OLD BROAD STREET, LONDON.

SPECIAL BUSINESS in the Lisburne Mines, Minera, South Condurrow, West Godolphin, and East Carn Brea.
T. P. THOMAS is PREPARED to RECEIVE APPLICATIONS from parties disposed to join in a FIRST-CLASS LEAD MINE in CARDIGANSHIRE.

MR. CHARLES THOMAS, MINING AGENT, GENERAL SHAREDEALER, AND AUCTIONEER,
3, GREAT ST. HELEN'S, LONDON, E.C.

Third Edition, price One Shilling; post-free, fourteen stamps.
MINING FIELDS OF THE WEST:
A PRACTICAL EXPOSITION OF THE PRINCIPAL MINES AND MINING DISTRICTS OF CORNWALL AND DEVON. Published by CHARLES THOMAS, At No. 3, Great St. Helen's, London, E.C.

DIVIDENDS 10 to 20 PER CENT.—
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Read SHARP'S INVESTMENT CIRCULAR (post free).
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CAPITALISTS, SHAREHOLDERS, INVESTORS
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Safe Investments in— ENGLISH RAILWAYS. FOREIGN RAILWAYS. COLONIAL SECURITIES. RAILWAY DEBENTURES, &c. BANK SHARES. Stocks and Shares of every description bought and sold at the closest market prices net.	Safe Investments in— AMERICAN SECURITIES. INSURANCE SHARES. FOREIGN LOANS, BONDS, &c. BRITISH AND FOREIGN MINES. MISCELLANEOUS SHARES, &c.
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GRANVILLE SHARP AND CO., Stock and Share Brokers.
Offices, 32, Poultry, London, E.C. Established 1852.

SPECIAL BUSINESS in the following mines:—
Trumpet Consols. Wheal Jane. New Seton.
East Trumpet. North Jane. Nanglies.
Bankers: London and Westminster, Lothbury, London, E.C.

MR. W. H. LANYON,
(Late of Kennall Gunpowder Company)
GUNPOWDER MERCHANT,
TRURO.

FOR PERMANENT INVESTMENT.

BARTLETT AND CHAPMAN recommend the immediate purchase of Tin Valley, Lovell Consols, and Great South Chiverton shares, as they are rapidly improving, and will return to present purchasers a large profit this year.
At LOVELL CONSOLS they are breaking good tin from the 12 fm. level, and the mine sinking below the adit is worth £12, and improving.
At TIN VALLEY the lode in the adit has improved since last week, and will produce good work for the stamps, both for tin and arsenic.

At GREAT SOUTH CHIVERTON, the mine sinking below the 40 is now worth 14 cwt. of lead per fathom, which speaks well for the 50 fms. proving valuable. The Chiverton lode will be intersected in driving about 10 fathoms.
Bankers: London and Westminster, and Alliance.
Offices, No. 2, Bucklersbury, London, E.C.

BARTLETT AND CHAPMAN'S "INVESTMENT CIRCULAR"
AND FINANCIAL RECORD

(Published on the first Wednesday in each month)
Comprises—A Comprehensive Review of the Stock, Share, and Money Markets; an Enumeration and Comparison of the Whole Circle of Investments; and Valuable Suggestions for Purchase or Sale.
** Sent free on application.
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MR. C. A. POWELL, BRITISH AND FOREIGN STOCK AND SHAREDEALER,
No. 1, PINNER'S COURT, OLD BROAD STREET, LONDON, E.C.

Business transacted in every description of negotiable securities at the current market prices, net.
BUYER of 50 Pestarena.

OFFER WANTED for 100 St. Just Amalgamated.
Mr. POWELL has large transactions in the leading gold mines, and can deal advantageously. He is also a buyer or seller of East Caradon, Prince of Wales, North Treskerby, Mid-Wales, Brynpostig, New Lovell, and Wheal Uny.

There has again been a considerable amount of business transacted in Frontino shares during the week. The fortnightly settlement, just concluded, was heavy in most shares, and with regard to Frontino it may fairly be called enormous. Notwithstanding this, and in such circumstances we usually expect a "flat" market, the price is decidedly better, closing firm, buyers, at 20s.
The advances and remittance from Chontales cannot but be regarded with satisfaction, the present return nearly meeting cost. It may be fairly assumed that Mr. Holt will have a far easier task before him than appeared probable a few months since.
References exchanged.
April 16, 1869. Bankers: City Bank, Finch-lane.

WALTER TREGELLAS, 122, BISHOPSGATE STREET WITHIN, LONDON, E.C., DEALS in all STOCKS AND SHARES, either for cash or the fortnightly settlement.

SPECIAL BUSINESS in the following gold mines:—
Don Pedro. Rossa Grande. Anglo-Brazilian.
Taquaril. General Brazilian. Sao Vicente.
W. T. recommends the shares of The Van Lead Mine, in which he is in a position to do business. Bankers: The Alliance Bank.

NOTICE OF REMOVAL.

MR. Y. CHRISTIAN, STOCK AND SHAREDEALER,
has REMOVED from No. 6, Bond-court, Mansion House, E.C., to No. 11, ROYAL EXCHANGE, E.C.
Bankers: Bank of England.

BUYERS AND SELLERS OF BRYNPOSTIG SHARES
Should apply to—
G. R. ROSS AND CO., 26, NICHOLAS LANE, LOMBARD STREET.

LEAD MINES AS AN INVESTMENT.

MR. J. H. MURCHISON will shortly publish a PAMPHLET on the "LEAD MINES OF CARDIGANSHIRE AND MONTGOMERYSHIRE,"—districts comprising VAN, DYLLIFFE, LISBURN, EAST DARREN, SOUTH DARREN, and other important Mines. Price 6d.
In the meantime, orders for early copies may be sent to Mr. MURCHISON, at his office, 8, Abchurch-lane, London; and information will also be given relative to Mines in the above districts to anyone wishing and applying for the same.

MR. EDWARD BREWIS, STOCK AND SHAREDEALER,
No. 34, OLD BROAD STREET, LONDON, E.C., has BUSINESS, for cash or account, in all the various gold and silver, copper and lead, and especially tin shares, at advantageous prices. Investors who are in unmarketable stock may find purchasers.
Money advanced on good shares.
Bankers: The Alliance Bank, London, E.C.

MR. JOHN MOSS, STOCK AND SHAREDEALER,
ST. MICHAEL'S CHAMBERS, 42, CORNHILL, E.C.
Business as BUYER or SELLER in Frontino, Chontales, Don Pedro, General Brazilian, and Taquaril Gold shares.
Bankers: City Bank, Finch-lane, E.C.

MR. J. N. MAUGHAN, STOCK AND SHAREBROKER
(Member of the Stock Exchange),
No. 2, COLLINGWOOD STREET, NEWCASTLE-ON-TYNE,
Bankers: Messrs. Lambton and Co.

MESSRS. A. STUART AND CO., STOCK AND SHAREDEALERS,
38, BISHOPSGATE STREET WITHIN, E.C.
Are in a favourable position to deal in all foreign gold and silver mining companies. In Cornish and Devon tin mines we think everything is very favourable for increased dividends, and a great rise in price of some shares. We shall be happy to forward on an after April 20 our circular of "Profitable Facts," post free.

Original Correspondence.

COAL-CUTTING MACHINERY.

SIR,—After seven years of arduous labour, and much expense in the prosecution of this object, and having demonstrated that coal can be cut by machinery with real advantage to the labourer, the coal owner, and the public at large, I am surprised to find that there is even one man who is willing to take from us, if he could, the credit which we believed ourselves entitled to. I refer to Mr. Joseph Rothery, whose letter appeared in last week's Journal; and although it is far from my intention to enter into a newspaper controversy with him, I do feel called upon to give a brief narrative of the origin and progress of the invention, so that your readers may form an opinion of the spirit which moves him. It is necessary that I should go back to the year prior to the date of our patent, at which time Mr. Rothery was the "bottom steward" at our West Ardsley Colliery. He represented to me that he and the late Mr. Ridley had invented a machine, which with two men would cut as much coal as could be done by sixteen men in the ordinary way, and we believed him. We entered into an agreement with them for the possession of that patent, undertaking to pay all the expenses, past and future, and to give them 20 per cent. of the profits, not only from their own machine, but of any other inventions of which we might become possessed, Mr. Donisthorpe having at that time obtained a patent for a coal-cutter, on the principle of the "straight action." The machine of Ridley and Rothery was to be worked by manual labour—the turning of a wheel, whereby a strong spring was coiled and released alternately, thus causing a blow to be struck on the face of the coal by a pick; and although Mr. Ridley's name is in the patent, Mr. Rothery claims to be the originator. Mr. Ridley was a clever mechanic, and we took him into our service, giving him a liberal salary, and we appointed him to be the head engineer at our works. The machine which had been patented by himself and Mr. J. Rothery was ordered to be made ready. Many preliminary trials were made of an unsuccessful nature, and after all was done that could be done to make it work the final result was that I could cut more coal with my penknife than could be got by that remarkable "invention." It was cast out among the other unsightly rubbish of the colliery, and there became an object of derision and contempt through a wide-spread population, whose expectations had been much excited by those "sanguine inventors," and we were upwards of 5000. out of pocket. The total failure of the invention, and its utter worthlessness, put an end to the claim made by a gentleman of the name of George Alfred Mellin, who alleged that the invention was his; and he complained bitterly of the conduct of Messrs. Ridley and Rothery—so much so, indeed, that if any profit had been realised by us we should have been prepared to make him some compensation for his disappointment.

This was the condition of things when the idea of a compressed air coal-cutting machine originated, and a patent was obtained by Messrs. Donisthorpe, Firth, and Ridley, No. 2977, Nov. 26, 1861. Mr. Rothery had no connection with that patent; he was not a necessary party to it, and except in the course of his duty as a servant of the firm, carrying out instructions given to him, he had done nothing, and was not entitled to be associated with it in the patent. Mr. Ridley, as I have before said, was a good mechanic, and we placed in his hands the superintendence of the construction of some trial machines, and made him responsible for the work, but the introduction of the compressed air was entirely my own, and any statement to the contrary is wholly unfounded.

This invention when put to trial was exceedingly satisfactory, and seemed to open out the prospect of a great success. It had some deficiencies, as might reasonably be expected in such an undertaking, and those requirements have been supplied by the subsequent patents of myself and Mr. S. Firth. The results inflamed the minds of Messrs. Ridley and Rothery. They disposed of their interests with us for very large sums of money, and one, or both, of them became associated with Mr. James Grafton Jones, who had been the draughtsman at the office of our patent agent in London, and entered into an active competition with us, doing all in their power to render valueless the invention which had been to them a source of so much profit, realised by the sale of their shares with us.

I certainly understood that Mr. Rothery did not think favourably of the compressed air-power, and he afterwards took out a patent for driving a coal-cutting machine by horse-power, in a similar manner as the donkey draws water out of the well at Carisbrook Castle. This invention was intended to supersede the compressed air machine at West Ardsley. It has been tested I believe, but the world is kept in ignorance as to its merits. As Mr. Rothery has now for the first time, and after seven years have elapsed, presented himself as one of the inventors of the compressed air-machine, it would indicate that he has failed again. The closing paragraph of Mr. Rothery's letter runs as follows:—

"But to return to the point—that is, the inventors of this original successful coal-cutting machine—I can say with truth that I was the originator of the machine at the West Ardsley Colliery; and I can say, without fear of contradiction, that the late Mr. Ridley and I invented the first coal-cutting machine put to work with success at the above colliery, and we also successfully applied the motive-power machinery which is so well adapted for underground work, and has since almost come into general use. I might also add that it was from the above arrangement of air-compressing machinery that Mr. Jones took the advantage."

And I append copy of the declaration lodged at the Patent Office on the application for the patent, and subscribed to by Mr. Ridley. He is now dead, but this declaration must be regarded as his evidence in the case:—

[COPY.]
"We, George Edmund Donisthorpe and William Firth, of Leeds, in the county of York, merchants, and Robert Ridley, of Leeds, aforesaid, engineer, do solemnly and sincerely declare that we are in possession of an invention for improvements in machinery and apparatus for working coal and other mines, which invention we believe will be of great public utility, that we are the first and true inventors thereof, and that the same is not in use by any other person or persons to the best of our knowledge and belief, and we make this solemn declaration conscientiously believing the same to be true."

I shall make no further comments upon this part of the case, and it is scarcely worth the while to allude to any other statement in his letter. I would, however, caution your readers not to be misled by the mere statements of inventors of coal-cutting machines. Nothing can be more preposterous than the calculations which they have put forward, and from my own experience I advise those who take an interest in the matter to see the work done. The West Yorkshire Company have kindly given us permission to admit on any day our passes to enable parties to see the machines at work, and anyone can obtain a pass by applying at 15, York-place, Leeds.

As to "the limit of capacity," I may say that one of the two machines now working at West Ardsley has cut 1012 tons in one week, and the same machine can cut a groove 28 in. deep and 50 yards long in 60 minutes. Still I only rate them at 750 tons per week, which each of these machines would now be doing if we had room enough for them. Additional space, however, will shortly be available.

WILLIAM FIRTH.

GEOLOGICAL NOTES ON COAL—No. I.

To many persons my subject may appear to be singularly commonplace, but I have lived long enough in the world to know that some of our commonest objects have a fund of interest which the thoughtless and uninquiring never dream of. No doubt coals of various kinds are common enough, but common as they may be, they are our British Diamonds, and more valuable to us than hoards of Kohinoors, and which make our beloved Victoria, "the Queen of the Seas." But we do not by any means wish to indicate by these remarks that we have anything startling or remarkably new to ventilate touching these gems which lie beneath British soil. Nothing that I may advance may be new to the intelligent geologist, yet I hope that my remarks may not altogether be unworthy of his notice.

In answer to the question, Where is coal to be found? any school boy knows that coal is found at various depths in the bowels of our mother earth. It is worked at a depth of more than 600 yards beneath the surface; and we have substantial reasons for believing that it extends to a much greater depth than that; but beyond a depth of 1000 to 1300 yards it could not be obtained without meeting almost insuperable difficulties—difficulties of temperature which no system of ventilation, however perfect, could entirely obviate—difficulties in practical mining which the produce would not pay for the removal thereof. In some of the Lancashire, Cheshire, and

Durham mines coal is got at a depth of nearly 700 yards, and in some parts of Durham and Cumberland coal workings are actually extended far beneath the waters of the ocean.

But deep as coal is known to exist in the bowels of the earth, geology tells us that once it rested on the surface (but of course in a very different condition), and was bathed in the sun-light and moistened by the rain and dew. But coal is sometimes seen near the surface—"cropping out," as it is called, on the sides of railway cuttings and valleys.

As to the condition in which it is found, it is invariably seen in the form of beds or seams, and never in that of veins, as in the case of many of the metals. It is never thrown up into mountain masses, irregular and distorted like the granitic, trappean, or volcanic rocks, but spread out in regular beds, varying from a few inches to a few feet in thickness. These beds of coal are numerous in many places and lying one upon another, each bed being separated by strata of shale, sandstone, clay ironstone, or limestone of variable thickness. The areas where the coal beds are deposited sometimes take the form of a basin or trough, and consequently they are often called coal basins.

Then as to the geological position of coal, or the place it occupies among the rocks composing the earth's crust, it is principally found in what is called the carboniferous formation, and forming the uppermost member of that system. But other geological formations can boast of coal as well as the carboniferous. There is coal in the oolitic formation, which lies above the new red sandstone. The coal worked at Gristhorpe, near Scarborough is oolitic coal. So is the coal in some parts of America, East Indies, and Australia. But there is coal of a more recent date than that, belonging to the tertiary formation, the highest system of rocks. In fact, there are coals of all ages and of all quantities, but the great bulk of the coal in this country and of nearly all Europe and America is of the carboniferous age. The various members of the carboniferous formation (to give them in their descending order) are:—The upper or true coal measures; millstone grit; mountain limestone; carboniferous slates, or lower coal measures. All these members are not everywhere found or developed to the same extent in every coal district. In some localities, as in the North of England, there are no lower coal measures; while in other districts you find no millstone grit. But whatever members of this system are present, they are never out of place, and a higher rock is always found overlying a lower. Millstone grit is sometimes called "farewell rock" by miners, because when they reach that group of deposits consisting of conglomerates and coarse and siliceous grits they do not expect to find any productive coal beds. It used to be believed that coal would not be found continuous beneath the magnesian limestone and lower new red sandstone, the members of the Permian formation, but that idea is now dispelled by facts—by the discovery of rich beds of coal beneath the Permian strata. And I should not be surprised if subsequent explorations should prove that the Cumberland coal field underlies the red sandstone measures that prevail north of Maryport.

As to the various coal fields of Great Britain, their extent, their resources, and other peculiarities, my limits and object will not permit entering into details.

Our largest coal field is that of South Wales, calculated to cover an area of nearly 2000 square miles, containing more than 20 coal seams, and yielding a thickness of more than 80 feet of workable coal. There is one peculiarity in this coal field to which I beg to call attention. If we draw a line from north to south across this coal field from Swansea to Merthyr, we shall find that on the western side the coal is a kind of stone coal or anthracite, of which I shall have something more to say, while on the eastern half the coal is nearly all bituminous or gaseous. And how is this singular fact to be accounted for? We know that in the close neighbourhood of dykes, containing volcanic matter, the coal sometimes becomes anthracite, but in this special instance we are told there is no indication of volcanic agency whatever. The beds are but slightly thrown out of the horizontal position. Heat, whether from the interior of the earth or from chemical action, would be sufficient to account for this change in the coal deposits, providing there was room for the escape of the volatile or gaseous elements of the coal.

The South Staffordshire coal field is not large, but remarkably productive, and yields more iron than any other district of the same extent. In this field there is a notable seam, called the "Ten-yard" or "Thick Coal," having a general thickness of 30 feet. This is not, however, one continuous seam throughout the whole of its area, but composed of several seams, resting one upon another, with thin partings of shale.

But leaving the general characteristics of the coal field, I will write a few words respecting the fractures or faults which often traverse the coal measures. My remarks, however, on that subject must stand over till next week.

M. A. MOON, F.G.S.

HAULAGE OF COAL, AND TRANSPORT OF MINERAL.

SIR,—Mr. Hodgson being on the Continent, surveying ground for constructing some of the company's lines, is unable this week to answer the questions put forward by your correspondent, "H. K. B." It may, however be satisfactory to that gentleman to know that an appointment has been made with Mr. Emerson Bainbridge, the writer of the report on the Haulage of Coals, to meet Mr. Hodgson at Leicester, and to enquire into and experiment on our system. Mr. Bainbridge will doubtless make public his investigations.

M. BEALE, Secretary.

Wire Tramway Company, Gresham-street, London, April 13.

MINERAL WEALTH OF IRELAND—No. I.

ON THE APPLICATION OF THE SURPLUS REVENUE OF THE IRISH CHURCH TO THE DEVELOPMENT OF IRISH MINING.

SIR,—In the winter of 1867-8 I employed some of my leisure time in writing a series of letters on the "Present Condition of Ireland," which appeared anonymously in an influential English provincial paper, and as it seemed to me that a more active development of the great mineral resources of that country must constitute an essential element of its future prosperity, I ventured to sketch the outline of a plan which promised to facilitate that desirable result. You, Sir, were pleased to notice with some approval the general features of this scheme, and as an extraordinary conjunction of political circumstances at this moment renders perfectly feasible what only a year since might to many have appeared impracticable, I will, with your permission, return to the subject, in the hope of enlisting the support, or at least attracting to it the attention of men better qualified than myself to think and act for the benefit of this important section of the United Kingdom.

The general proposition which I shall seek to establish is this—That the surplus remaining in the hands of the State from its proposed acquisition of the property of the Irish Church will, as regards the permanent interests of the mass of the Irish people, be much more beneficially applied to the development of Irish mining industry in the manner proposed than if devoted to the various charitable purposes specified in the Government Bill. The amount of this surplus is estimated at about seven millions sterling, and Government propose that this be applied—

"Under the management and control of the Poor Law Commissioners for Ireland to the following purposes—viz., the support of infirmaries, hospitals, and lunatic asylums, in exonerating of the Grand Jury cess, the support of reformatory and industrial schools, the salaries of trained or skilled nurses for poor persons in sickness or in labour, the suitable education and maintenance of the blind and of the deaf and dumb poor, and the care, training, and maintenance of harmless idiots."

The "remedial measure" which I had suggested before the proposed disestablishment of the Irish Church had been submitted to Parliament was thus stated:—

"As regards the minerals of Ireland, then, I venture to suggest—1. That the Crown obtain from Parliament the requisite powers to purchase all mineral and other rights to minerals, so that all the royalties in the island shall henceforth be vested in the sovereign.—2. That for this purpose, and for superintending the future working of Irish minerals, a permanent Board of Commissioners be appointed, and have their office in Dublin.—3. That with regard to mines now in course of exploration, the value of each royalty be determined by the amount of dues or rent actually received by the lord of the manor on an average of — years; and that where no mines are being worked the present lords of manors shall participate to a certain extent in any dues that may be received from minerals worked during the next — years.—4. That all existing leases be respected, and on their expiration a prior option of renewal on new conditions be given to those who hold them.—5. That a new code of mining laws be at once prepared for Ireland, defining the conditions on which permission to search for and work minerals will hereafter be granted by the Crown, and settling on an

equable basis, and in a spirit favourable to mining enterprise, all questions likely to arise between mining lessees and the owners and occupiers of the soil."

The purely political aspects of the questions involved I cannot, of course, here attempt to discuss, nor should I, perhaps, have presumed to present the opinions of a private individual against those of professed statesmen, had not so competent a critic as the *Mining Journal* in some degree endorsed the idea thus crudely enunciated. For on a subject of this kind it is obviously possible that a journal which stands aloof from all mere party motives and influences may arrive at conclusions more just and logical in themselves, and more consistent with the highest interests of the nation, than the ordinary exponents of the views and feelings of rival statesmen. The remark of the late Foad Pasha in reference to the Eastern question may, indeed, not inaptly be applied to the Irish problem now awaiting solution—that it is a matter of economics rather than of politics. And this opinion has been largely shared by many of the soundest patriots and brightest intellectual ornaments of Ireland. The creation of an Irish industry, which should provide more remunerative employment for the mass of the Irish people, and thus build up step by step, on the solid basis of individual comfort and contentment, a social fabric around which might cling the proudest hopes and fondest aspirations of a high-spirited race, this was the great object which Grattan and his compatriots had in view when, nearly a century since, extorted from the English Parliament the abrogation of a series of enactments directed against the nascent manufactures of Ireland. And to this day the deserted "Linen Halls," and other evidences of decayed industrial arts, are often pointed out to English visitors as fruits of misrule. But all experience shows that the exploration and working of the minerals of a country is the first step towards manufacturing success, as they either supply the raw materials of manufactures, or directly or indirectly create a demand for various industries. And if it can be shown that the mineral wealth of Ireland has been comparatively neglected, and that a judicious system of legislation on this subject, backed by the command of a sum not exceeding that accruing to the State from the disendowment of the Irish Church, would give an immense stimulus to Irish industrial pursuits, and so tend to ameliorate the condition of the Irish labouring classes, and to the general welfare of that country, the responsibility of having allowed the present opportunity to pass must rest with those who possessing the power to inaugurate a better state of things have failed to use it. In short, the manner in which this surplus is applied for the benefit of the Irish people, the avowed object of the Government, may be regarded as a crucial test of the spirit in which Irish legislation is in future to be conducted.

[To be continued in next week's Journal.]

MINERAL WEALTH OF IRELAND.

SIR,—May I respectfully request you will be good enough to allow me to state, through the Journal, that I am in a position to indicate at any moment the exact spot in the county of Dublin in which lead mines lie. I have good reason to believe that this mine would prove not only productive but highly remunerative to any party of sufficient enterprise to work it. DANIEL RYAN, Miner. Luganure Mines, Rathdrum, Wicklow, April 9.

THE TIN SPECULATION.

SIR,—The price of foreign tin having been advanced 50% per ton in the past six months, and having receded 12% in the past six days, it becomes an object of importance in the interest alike of consumer and producer that the situation should be fully discussed and examined, with a view to ascertaining if such an advance is warranted by statistics, and if on the (only true) basis of consumption and supply it is probable that existing prices can be maintained or otherwise. The following figures, which represent the combined stocks of Banca, Straits, and Billiton afloat and in warehouse—Oct. 1, 1868, 8741 tons; April 1, 1869, 7882 tons—seem to show, by the reduction of stock, that the consumption for the six months was 860 tons in excess of the supply, and it is acting on this apparent scarceness that speculators have been able to force the price to its present fictitious value. This deficiency can be distinctly traced to the short quantity of Banca tin sent to Europe, the sales of 1868 amounting to 3100 tons, against 4874 in 1867 and 7132 in 1866. The official returns of the Dutch Government, however, report the production of 1868 as being only 250 tons less than in 1867, and from the same sources we learn that there exists an accumulated stock of 200,000 slabs (6000 tons) of Banca tin, held ready for shipment in the Government stores in Batavia, of which stock 2000 tons were accumulated in the three months ending Dec. 31, 1868. It would be idle to discuss the motives which may have guided the councils of the Trading Company, but if they seek by withholding supplies to induce higher prices it is not hard to foresee that they must eventually aggravate the evil which they wish to avoid, for when this 6000 tons arrives, as eventually it must arrive, in Holland the result will be a market which must be overstocked and depressed for years. I forbear from discussing the further tendency to lower prices from the inevitable contingencies of the present situation—a checked consumption and a stimulated supply; but the former is already to be recognised in the action of the tin-plate trade (consuming three-quarters of the total production), makers having decided simultaneously to close their works for one week in four; and the latter will, doubtless, be very shortly apparent in an increased supply from the Cornish mines, and in heavy shipments of tin from the Straits, where the production can and will be very rapidly increased. The interest of the consumer will be best studied, under existing circumstances, by retiring from the market, by buying simply from hand to mouth, and by patiently waiting the course of events.—April 14. CYMRO.

CHONTALES GOLD AND SILVER MINING COMPANY.

SIR,—The advice just received affords the most substantial evidence that those of us who have persistently supported our directorate will eventually be well rewarded by the realisation of a material success. Those who attended the last meeting, at which Mr. Belt was present, will, doubtless, recollect that he based his calculations upon an estimated produce of 5 dwts. of gold per ton, and upon that computation, he unhesitatingly affirmed that he would personally risk his last shilling rather than forego the further exploration of the property, to which Mr. Belt added that he had been associated with gold mining enterprise in different parts of the world, but in no single case had he ever known another property like Chontales, with regard to which he felt himself justified in expressing an unqualified opinion as to its intrinsic worth. There can be no question, I think, that at the outset of this enterprise the management, impressed with the magnitude of the property, conceived a plan of development comprehensive enough and it might have been practicable enough provided there had been a subscribed capital equal to its completion. This "grand conception," however, as we all know, signally failed, and has been followed by a system which, although less gigantic, is gradually proving to be at once effective and profitable. The whole plan to be adopted by Mr. Belt is, simply this—to capitalise the revenue of the mines; in other words, to make the returns meet the outlay of development, and thus by gradually increasing the returns extend the scale of exploration, leaving the residue for division among the proprietors. The soundness of this policy has been strikingly proved in the case of the Babu Mine, the property of the St. John del Rey Company. Like Chontales, the whole of the capital of the St. John del Rey Company was utterly exhausted before anything like satisfactory results were realised. In truth, the case of Chontales compares most favourably with that of the St. John del Rey, and for this reason—that the latter expended the whole of its capital upon the property originally purchased, and subsequently abandoned it as valueless, whereupon the opening out of the Babu Mine was commenced, and with its own returns continued till it proved to be that magnificent success which made it the envy and admiration of all interested in gold mining enterprise. The case of the Chontales, however, is far more satisfactory than that of the St. John del Rey, inasmuch as, although the capital has been expended, the result is that the mines upon which the outlay has been made are not only proving unproductive, nor only maintaining the nominal value upon which Mr. Belt estimated profits would be realised, but, in addition to this, the yield of gold per ton of ore is gradually increasing, and (according to the testimony of Mr. Burgess), "the ore both at Consuelo and San Domingo improves as the levels are advanced into whole ground." The evidence of this is that the produce now is 8½ dwts. of gold per ton, against 5 dwts. some months since, and as the remittance for February amounts to 642 ozs. it may be fairly surmised that already that desirable point has been reached of the monthly cost being met by the monthly returns.

My object in troubling you with this letter is to impress upon my fellow-shareholders the necessity of bearing these facts in mind, and not to be induced to part with their shares by those whose sole object is to get them into their own hands.—April 14. AN ORIGINAL SHAREHOLDER.

HOLLOWAY'S OINTMENT AND PILLS.—The scrofulous and consumptive will find in these noble remedies the means of casting out the bad humours which originate and prolong their sufferings. The ointment should be well rubbed twice a day over the skin as near as possible to the part affected. It will penetrate and act most wholesomely and energetically on the diseased structure. It manifests a wonderful power in removing all taints from the blood, and consequently in curing a multitude of chronic ailments which seemed to be almost irremediable. No invalid who carefully studies the plain instructions folded round every packet of Holloway's medicines will be at a loss how his preparations can be used to the greatest advantage.

Meetings of Mining Companies.

ANGLO-BRAZILIAN GOLD COMPANY.

The ordinary general meeting of shareholders will be held at the London Tavern, Bishopsgate, on Thursday next, when the sixth report of the directors, embracing the operations of the company for 1868, will be presented.

The reports from Capt. Thos. Treloar, the consulting engineer, and Mr. F. S. Symons, the manager, show results which, the directors regret to say, cannot be considered satisfactory, the expectations relative to the "Mineralogia" section not having been realised. Two causes have militated against the success of the company so far—a falling off in the auriferous quality of the stone raised, and an inadequate force. Notwithstanding these drawbacks, however, the gold return for the year has amounted to 39,385 ozs. This produce has enabled the operations to be carried on throughout the year with only a trifling loss, whilst, in Capt. Treloar's opinion, even the present yield per ton with adequate force, would enable satisfactory results to be obtained. Capt. Treloar also calls attention to the fact that the Fundao section has yet to be explored. The shareholders have already been informed that Capt. Treloar, anxiously bearing in mind the interests of the company, had felt it his duty to recommend the purchase of an additional property, that he had examined and reported upon a Jacotinga mine, and that the directors, having every confidence in Capt. Treloar's opinion, had, after mature deliberation, decided to adopt his suggestion. Extracts from Capt. Treloar's report upon this property were circulated in February last, and now, as then, for evident reasons, full particulars are withheld. The directors, however, expect shortly to hear that the terms of purchase have been arranged, and that the deeds are undergoing examination, when details will be immediately furnished. Capt. Treloar having in February, 1868, concluded his term of office as managing agent, availed himself of the opportunity of visiting England, and during his stay the directors concluded an agreement with him (to act as consulting engineer to the company) for a further period of three years. On Capt. Treloar leaving Brazil the management of the mines was entrusted to Mr. F. S. Symons, who, having been superintendent of the company since its formation, and for many years connected with Capt. Treloar in Brazil, was considered fully competent to undertake the duties. The shareholders will, doubtless, have observed with much satisfaction that Capt. Treloar on his return expressed himself highly pleased with the work done during his absence, and with the state of the establishment generally. The directors think it but right to state that the unsuccessful results obtained so far have been entirely owing to unforeseen circumstances, over which they could have no possible control; but by the purchase of an additional property, and the continuance of an energetic and economical policy, they feel assured that satisfactory results will ere long be obtained.

GREAT LAXEY MINING COMPANY.

The half-yearly meeting of shareholders was held at the London Tavern, on Wednesday.—Mr. G. W. DUMBELL in the chair.

The notice convening the meeting having been read, the accounts (an abstract of which has already appeared in the *Mining Journal*) were taken as read.

The report of the directors was read, as follows:—

The directors have much pleasure in being able to report that during the last half-year no particular change has taken place in the mine, except a continued increase of lead and blende, and although the expenses have increased, the same quarterly dividends, at the rate of 30,000l. per annum, continue to be provided by the mine, being at the rate of 50 per cent. on the paid-up capital of the company. The earnings of the mine have fallen off since the last year, but the directors are in every way enabled to keep the mine in reserve, and the price of the ore has been highly beneficial to the company. The directors are gratified to find, from the report of the managers, that there is every reason to expect a continued prosperity of the mine. At the meeting of directors in London, in March, 1868, it was resolved to determine a contract for a large monthly supply of blende to a leading firm of smelters, which was acted upon accordingly, in consequence of which the company became large holders of blende. The directors have much pleasure in stating that the firm attitude taken by them has resulted in sales of large quantities of blende, upon much better terms than the contractors were willing to give, and has been highly beneficial to the company. The attention of the directors has been called to some very unfair attempts to injure the value of the company's property in public estimation by unfounded insinuations as to the unexpired term of the lease of the mine, and the terms upon which it is likely to be renewed. The directors did not think it desirable to gratify the writer of the article referred to by any notice thereof until the general meeting, and they now desire to inform the shareholders that of the lease, which is held from the Crown, five years was unexpired in November last; and as the mines have been fully and energetically worked, and various parts of the mine explored without any hesitation, as to whether the directors cannot contemplate any difficulty being raised by the expiry of the Crown in renewing the lease of the mine, when the proper time arrives for an application to that effect.

The manager's report was read, as follows:—

April 12.—In again submitting to you our half-yearly report, we have the satisfaction of stating that the prospects of the mine, as respects the future, are equally as good as they were six months ago. We have completed the alterations in our main rods and pitwork at the main engine-shaft as low as the 190, and the water will soon be in fork to the 220. There are but few alterations now to make, and when these are completed we shall go on sinking the shaft without any further interruption. The shaft is now 210 ft. deep, and is 4 ft. wide, and worth for lead and blende 50l. per fathom. The 200 is also opening out good ground for stopes, worth from 60l. to 80l. per fathom. In the 190 we have recently cut through the big slide, and, owing to the great influx of water we had when it was cut through, our progress in driving the end north has been slow, and this increase of water also accounts for our tardiness in forking the water below the 210. We look at this flow of water coming from the unexplored ground north of the shaft, and we are gratified to find, inasmuch as it shows that there is open porous ground below us, and when we get to the ground, we are also sure to have ore; the lode in the end is 7 feet wide, and worth for lead and blende 60l. per fathom. The lode in the 180, driving north, is worth 80l. per fathom, and this end is now well up to the sum coming down from the 165, in which sum the lode is worth 60l. per fm. There is no change to notice in the 165 fm. level end north; the end being in advance of all other ends in this direction, and the air being impure, we have been obliged to suspend the driving until the air is purified; the lode in the end is worth 70l. per fathom. The 155 fathom level end north is worth 80l. per fathom, and the 145, on the east vein, has improved, now worth 50l. per fathom, thus showing a succession of levels regularly penetrating a run of ore ground, all in whole, going north, worth from 50l. to 90l. per fm. for 65 fms. in height, saying nothing of what there may be below the 210 fathom level or above the 145 fathom level. We have not come upon any change of note in the south or copper ground of the mine during the past half-year. The levels driven, and still in progress, are the 200 and the 60, neither of which have yet discovered sufficient ore to pay for driving. The 200 is the roof of the 190 and is regularly sinking a meeting, through a valuable lode, and the sum from the 110, referred to upon that occasion, has been communicated with this level. Six months ago we stated that we had here laid open 26 fms. in length of rich ore ground; to this we have since added 14 fms., making 40 fms. in all, some of which, near the sum, is worth 150l. per fathom, and the present end is worth 80l. per fathom. In the 110 we have recently suspended the driving of the level, which is at present poor, and commenced to sink a new sump at the extreme north end of the ore ground; here we have a lode worth 80l. per fathom, and this sump is in advance of the present 125 end by about 11 fms. Above the 110 the 60 continues to be driven north. Soon after the last meeting the lode for a short distance became small and poor, but has since opened out, and the end is again worth 60l. per fathom. The 50, stated in last general report as about being resumed, has been driven through a piece of ore ground 6 fms. in length, at the north end of which we have this month commenced to sink a sump on a lode worth 60l. per fathom. The 60, south of Dumbell's shaft, we have laid open new ground 10 fms. in length, but the end has been poor. We are at the present time sinking a sump to the 70 fathom level, in order to ventilate and lay open the ground for working, in which the lode is at present stated to be worth 60l. per fathom. At Agueash, not having the lode in the shaft, we are unable to report any change; the sinking is being regularly carried on, and the shaft is now down 13 fms. below the 50 fathom level. The add level cross-cut in the Glen is being driven west on the course of a vein running in that direction, and in which occasionally we see some copper; the level is now driven over 100 fms., and, according to the average run of the level, we have to have to drive about 30 fms. further before intersecting it. At Glenroy, the 25 fm. level driving north has, so far, not improved according to our anticipations at the last meeting, yet we know that there are deposits of ore setting down in the bottom of the add level, some distance to the north, which as we drive on will in all probability be met with. The engine-shaft has been completed to the 37 fm. level, and new drivings commenced north and south in a most promising lode, yielding lead, blende, and copper, but not in sufficient quantities to value. We still believe that depth is all that is required to produce a good mine. From the foregoing facts, we have every confidence in the value and permanent prosperity of the mines.—R. ROWE, J. BARRELL.

The CHAIRMAN said it was gratifying on his part to be able to state that he had very few remarks to make upon the present occasion—there was no great flourish of trumpets, there were no wonderful new discoveries, but there was no falling off, which was, after all, the most important feature, the more especially as he was able to inform the shareholders that instead of a falling off there was a considerable increase in the amount of ore ground laid open for the future permanent prosperity of the company. (Hear, hear.) It has been perceived by the reports read that the various points of operations varied from 50l. to 150l. per fathom, which gave a substantiality to the produce, and a security for the payment of dividends. (Hear, hear.) It had also been perceived by the reports that considerable improvements might be anticipated at some points in connection with the shaft, and that it was a very interesting point. The large slide, which was, in fact, a cross-vein, had been cut through, and the flow of water had been so great that it was quite as much as could be done to keep that part of the mine clear, because the water had risen during the alterations of the pumping-rods. That flow of water, however, did not drain the lands situated north of the slide; and, moreover, such an influx clearly indicated an open, porous lode. It had always been found that wherever the lode was not produced, the ore was close and hard, and comparatively dry; but where the lode produced ore of value the ore was found to be the case—that, then, was a satisfactory feature. It would be seen that from the 145 to the 200 fm. levels there were 65 fms. of ore ground to drive through, each level between those points having been proved to contain the rich lode;

while above the 145 and below the 200 fathom levels there was a valuable lode, so that shareholders might safely estimate that a great number of years must elapse before such a mass of ore ground could possibly be taken away. (Hear, hear.) There was one point referred to in the directors' report to which he alluded to the large accumulation of blende. As the time the accounts were made up the stock in hand amounted to upwards of 2000 tons. For many years the company had a contract with one of the largest smelting firms in the kingdom for the sale of blende, but for a long time the directors had felt perfectly satisfied the company were receiving much too low a price. The firm having declined to give a better price, the directors at the date of the last general meeting in London, unanimously determined to give three months' notice to abandon the contract. For some time subsequently he confessed he had some doubts as to whether they had taken the right course, inasmuch as the blende continued to accumulate; but since that time they had delivered very large quantities at a very much better price than was obtained under the contract, and the demands were equal to at least the quantity they could possibly raise. Only yesterday a representative of one of the largest firms had an interview with the board, but the only understanding that now existed was that the price should be fixed at a certain scale, according to the quotation for spelter, as announced in the *Mining Journal* week by week; and the directors were quite ready to enter into arrangements for a monthly supply, according to that scale, but still it must only be a monthly arrangement, and not a year's contract. From this it was seen, up to the period the accounts were made up, they calculated a saving of 1400l. had been effected by the cessation of the contract. (Hear, hear.) Upon comparing the half-yearly accounts now submitted with those of the corresponding half of the previous year, it will be found that, although the returns during the six months of 1867-8 were very good, yet that they were exceeded during the six months of 1868-9 by something like 100 tons of lead, in addition to a larger quantity of blende; the increase of lead having amounted in value to 2500l., and in blende to 1648l. There was, however, a decrease in copper, because the price had been so extremely low that they had not felt themselves justified in raising more than they were compelled to do, leaving the stopes untouched until the market had improved. As to the reference made in the directors' report with regard to an article which appeared in a little circular published for a certain object—a circular, he might add, so utterly insignificant that he did not feel himself justified in mentioning even its title, as by so doing he would give it a prominence which would gratify the vanity of its proprietor—all he need say was that this publication had been gratuitously forwarded to each shareholder, and that in it a statement appeared, to the effect that the writer of the article took credit to himself for having formed the Great Laxey Company, and then proceeded to speak as if he had taken the mine as a nursing-child, which was most amusing, seeing that this nursing-child was born long before the writer himself. (Laughter.) But the whole gist of the question was in the statement—that shareholders should enquire what length the lease had to run, whether there was a probability of it being renewed, and upon what terms? The writer had no interest whatever in the mine, and nothing to do with the concern, and what right he had to throw dirty water upon it shareholders might divine. It had given him (the Chairman) a little trouble to be cooking the accounts, and he ought to have written to him upon the subject, but he did not think it wise to gratify the writer by entering into a newspaper discussion upon the subject. As stated in the report, the company was standing in a perfectly safe position; there were five years unexpired of the present lease, and having worked under that lease most faithfully, most energetically, and without considering the outlay in any instance in opening the mine to the fullest extent, there could not be the slightest doubt that when the time came the lease would be renewed by the Crown upon favourable terms. No one could conceive the possibility of the Crown turning round after a period of 27 years, during the latter portion of which they had received in royalty about 4000l. a year, and refusing the renewal of the lease, except upon some extravagant terms. He looked upon the renewal as purely a mere matter of business. As long as they could go on satisfactorily, proving that they had a good and substantial property, that they were able to realise the handsome profit of 30,000l. per annum, that it was not merely a concern in which they were taking out the stuff to pay dividends and leave nothing behind,—as long, he repeated, as they were able to do that no charge could ever be brought against them of the fullest investigation. So long as they went on in their present course the Great Laxey might be looked upon as safe as almost any investment in the world. (Hear, hear.) He then moved that the report and accounts be received and adopted.—Mr. WALLER seconded the proposition, which was put and carried unanimously.

A vote of thanks was passed to the Chairman, directors, and manager, when the proceedings terminated.

SNAEFELL MINING COMPANY.

The half-yearly meeting of shareholders was held at the London Tavern, on Thursday.—Mr. DUMBELL in the chair.

The notice convening the meeting having been read, the accounts for the half-year (which appeared in last week's *Journal*) were taken as read. The report of the directors was read, as follows:—

The directors have to report to the shareholders of Snaefell Mine the progress they have made in carrying out the resolution of the general meeting in October last, relative to disposing of 9457 shares in the company, then held in reserve. The directors, without loss of time, proceeded to carry out what was intimated to be the wish of the meeting, and allotted the reserved shares amongst the original shareholders in proportion to their present holdings, offering such shares of the nominal value of 1l. at the rate of 12s. per share, payable by instalments of 3s., and extending over a period of twelve months. The result was the acceptance of somewhat more than 5000 shares, leaving upwards of 4000 shares undisposed of, which in terms of the previous arrangements were allotted amongst those shareholders who had agreed to take the shares apportioned to them under the first allotment, and by circular of Jan. 27, 1869, giving notice of the second allotment, the directors finding that several large shareholders had not taken any of the reserved shares, called particular attention to the fact that if the shares were not taken it would, probably, be necessary to wind-up the company. Many of the shareholders responded very handsomely to the call, and 1671 shares were accepted under the second allotment. A large portion of the shareholders objected to any idea being entertained of winding-up the company, and some few complained that the directors should have even named such a thing as a possibility, and that it was not the opinion of the shareholders, but it is of much more importance to them that it should not be supposed that those shareholders who contribute to carry on the mine should be made fully aware that other shareholders, well able to contribute, decline to do so, and that the directors should not be open to the charge of keeping either shareholders or the public who might buy shares in ignorance. The directors never entertained an idea of giving up the mine, but would, on the other hand, have publicly invited others to unite with them to purchase the property and supply fresh capital, in order to give the mine a new trial. The directors having made the shareholders acquainted with all particulars, and finding them anxious to carry on the present company, abstain from taking any step adverse to that feeling, and are now prepared to follow up the proceedings hereinbefore detailed by making sale of the remainder of the reserved shares in the market. In reference to the working of the mine, and the present prospects of the same, the directors refer the shareholders to the general report of the manager, Capt. James, and they believe that the prosecution of Snaefell is a fair, legitimate speculation, and one which holds out reasonable grounds to expect a successful issue. The directors have pleasure in stating that Capt. James has given every satisfaction, and that the works at the mine appear to be laid out with good judgment, and the whole undertaking carried on with energy and prudence.

The report of the manager was read, as follows:—

April 8.—Since the last half-yearly meeting we have sunk the engine-shaft to 75 fms., and cased and divided the shaft down from the 60; driven off in the 75 fms. level north and south for about 3 fms. each; also cut the lode at the bottom of the shaft, and have resumed the sinking. The lode in the shaft continues large, and as we gain depth is in ground of a still more decidedly settled character. The 60 north has been extended 18 fms., but has not yet overtaken the best ore ground discovered in the 40, which when discovered was 2 fms. in advance of this present end, with a decided dip to the north; we have occasionally, however, a little blende in the driving. The 50 south (new level) having become poor has since been suspended. The 40 north has been driven 12 fms., and the character of the lode has improved as we have advanced; we have here just entered on another run of ore-bearing ground, similar to that last cut in this drive. The sump, commenced sinking on the ore ground before discovered in this level, has been carried down 12 fms., at which depth we found the ore had taken a further dip northwards, causing us in the 10 fathoms to commence another level, which has been driven 6 fms. on a good ore lode. The stopes in the 20 are still producing good payable stuff. We have again commenced the 20 level, and have driven east and west lode which is about 10 fms. ahead of the present end. The south adit has been continued, but without any particular change. Altogether, from the increasingly more settled and favourable character of the ground in depth, as proved by the sinking of the engine-shaft, and also from the very promising indications in our north levels—the 40 being 18 fms. in advance of the 50 and now in ore ground, and the 50 having been driven 6 fms. from the sump on a good lode, together with the 60 (a deeper level) now being only a few fathoms behind this latter run of ore-bearing ground—my opinion is more than ever strengthened that the most further perseverance in this mode of opening out the mine is alone necessary in order to your obtaining a valuable property. The crushing mill and dressing-floors have been completed, and are answering well. Nearly the whole of the old raisings is now dressed, and we shall shortly commence with the new, which we expect will produce from 15 to 20 tons lead and about 40 to 50 tons of blende. The pitwork and machinery are all in excellent order, and calculated to work the mine for a considerable time.—H. JAMES.

The CHAIRMAN said the directors had been working the mine with a limited capital, which was insufficient to prove the points they had in hand. The circular issued on Jan. 27 had elicited the opinion from some shareholders that the directors were not justified in having referred to the winding-up of the company. The idea of the directors was this—they considered it unfair on the part of shareholders who were in a position to pay not to subscribe their quota to the further working of the property. The directors did not like that sort of thing—they felt much aggrieved to find shareholders who were in a position to pay not to subscribe their quota to the further working of the property. They would repeat the benefit, although not subscribing anything towards the development. The directors had subscribed their proportion so far, but were, if that state of things continued, determined to come forward publicly, and invite parties to join them in taking up the mine, in order to give it a fair trial. The result was, to a certain extent, satisfactory, as a considerable number of shares—upwards of 1700—were taken up, chiefly by their friends in the neighbourhood of Bolton, whom he was glad to see, were represented upon the present occasion by Mr. Broadbent. There were, in round numbers, 2600 shares yet to be disposed of, in any way they deemed most desirable; 12s. per share had been the price named by the shareholders, and that the directors would regard as the lowest limit, until they received further instructions from the shareholders. The position of the mine was described by the manager in his report. Ore had been discovered in the various levels driven between the 25 and the 60, and the favourable feature was that the ore dipped north, as in Great Laxey. A sump had been sunk from the 50, for the purpose of meeting the rise going up from the 60, but, as at a depth of about 55 fms. the ore was found to be out, it was agreed that an intermediate level should be driven, so as to prove whether the ore discovered in the sole of the 40 was merely a "dip," or whether it was owing to the ore dipping northward that it had been cut out in the sump. It

was satisfactory to be in a position to state that by means of this intermediate level it had been proved that the ore was not only continuous, but that it improved in quality. The latest information, which was received by this morning's mail, was to the following effect:—

April 13.—I beg to avail myself of to-day's mail to inform you that I have a decided improvement in the 50 north—our most hopeful ground. I have never before been so sanguine about the mine. The lode in the 50 forebore has been opened fully 1 ft. in width on the east side, the whole of which is well mixed with steel ore. We have, therefore, in the end at this moment a good lode nearly 3 ft. wide, and showing every appearance of further improvement. The lode, and the general character of the ground as opened into to-day in this end, are decidedly better than anything I have before seen in the mine. This has been my most satisfactory day underground in Snaefell.—H. JAMES.

The CHAIRMAN added that "steel ore" in Great Laxey invariably indicated the commencement of a deposit of ore, and there was no reason to doubt that it would prove to be the same in Snaefell. Each shareholder, he thought, would allow that this information was very satisfactory and encouraging. It was a question whether they were not approaching northwards a great counter vein, known to the lode of Man miner as a "slide"—they had the same thing in Great Laxey, and they never had ore without it. As far as he was concerned, he felt perfectly satisfied that Snaefell would turn out a good mine—at any rate, he had given the best possible proof as to his opinion; for, although the largest shareholder, he had taken up his full proportion of the subsequent allotments, and he found that he had no less than 2776 shares—that, he repeated, was the best pledge he could give as to his opinion that Snaefell would turn out a success. He moved that the reports and accounts be received and adopted.

Mr. GEORGE seconded the proposition. Mr. ROWE said that he had much pleasure in responding to the Chairman's invitation. Although he felt, even as a miner, he could scarcely improve on the very lucid and practical statements made by the Chairman, he could, however, confirm fully the directors and the manager's reports, from a personal knowledge of the state and prospects of the mine, which so recently as this day week he carefully examined, and afterwards filled up the plan of the mine now produced, from which shareholders will observe that there is already a defined run of ore ground discovered in the mine, dipping at present first northwards towards the lode east and west lode, at the junction of which he felt it was all but a certainty that great and valuable bodies of ore would be found, the tendency to this quite accords with Great Laxey; and from Snaefell being on higher ground, the depth at which this result is likely to occur agrees with the great ore-bearing point of Great Laxey when that mine became a success. In conclusion, he was never more satisfied that the ores so far seen in Snaefell were only emanations thrown up from the heavier and larger deposits below, and with that feeling would stick by the mine, and by the directors in their present intentions to see it amply developed and adopted unanimously. Votes of thanks to the Chairman, directors, and manager were passed, when the proceedings terminated.

PENHALE WHEEL VOR MINING COMPANY.

The general meeting of shareholders was held at the offices of the company, Winchester-street, yesterday.—Mr. HOLROYD in the chair.

Mr. W. BATTYE (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed.

A statement of accounts was submitted, which showed a balance of liabilities over assets of 734l. 18s. 5d., including the March cost. The report of the manager was read, as follows:—

April 14.—The engine-shaft is sunk to the 110, where the shaftmen are at present employed cutting a plat. The south lode changed its underlie so rapidly from the 94 that we met with it in the shaft 10 fms. under that level, and the sinking was continued on its course for 3 fms., when a slide came in from the south, and the shaftmen were obliged to stop. The lode in the shaft, which was to be completed in a fortnight more, when I purpose cross-cutting to the lodes, where it is my opinion we shall have a good improvement for tin. Judging from the rapid turn which the south lode made under the hard floor towards the north or main lode, and its intersection with the slide, as well as the favourable change of ground which we are in, I consider our chances of success to be good, and believe that when we cut the lodes our expectations will be realised. I would also here remark that in this district, wherever slides have come in contact with the lode they have always proved productive. When we cut the lode in the shaft we shall also be able to ascertain at what depth we shall reach the junction, which is a very important point. In the 74 we have four men engaged cutting ground for balance-bob, which will greatly assist our pitwork in the deeper development of the mine. In sinking the last sump in Ritchie's shaft several branches from the lode dropped off south, and as soon as the shaftmen complete their plat in the 75, which they will do by the latter end of next week, we intend to drive south to ascertain whether a part of the lode is standing in that direction, and also resume the sinking as early as possible. The lode at the shaft produces large quantities of mounds and good stones of tin, but not sufficient to value; and I recommend sinking 10 fms. deeper, and then driving on the course of the lode back to intersect the great boundary cross-cut, which has yielded immense profits in the adjoining mine; and I have every reason to believe, from the kindly indications of the lode, that in proving the piece of ground as mentioned we shall meet with a discovery. During the quarter we have sunk in shafts 16 fms. 1 ft. 6 in., driven 5 fms. 2 ft. 2 in., pulled up lift from Battye's and sent it down in Ritchie's shaft, cased and divided the latter, cut ground and put in rolls in the 30 and 60 fms. levels, and other work. We have now employed underground 30 men; surface 5 men, 2 boys, one girl, and occasionally 3 sawyers; total, 41. We sold black tin and tinstuff during the last quarter amounting to 233l. 6s. 6d.—W. H. MARTIN.

The CHAIRMAN said that the report which he had the pleasure of presenting to the shareholders upon the present occasion would, doubtless, be received with satisfaction. From the result of the works now in progress, it was apparent that they were about to realise their anticipations. By the agent's report it would be seen that the south part of the lode had been met with in the shaft, and that while sinking a sump a slide had been cut, which had heaved the lode north. It was proposed to drive a cross-cut in the 110 fm. level, for the purpose of cutting the north and south lodes, where the agent expected to meet with tin, and it is to be hoped that it will be of such a character as to assist in the further development of the property, and thus relieve the shareholders from the heavy calls which they had been compelled to pay during the last two years. Another important feature in the mine was that the lode which was seen in Ritchie's shaft had been found "tinny," and of such a character as to justify the further sinking on its course. In perusing the financial statement, and that of the assets and liabilities, it would be found that during the past twelve months the committee had been able to carry on the operations at the mine with advantage, and at the same time to reduce the liabilities to the extent of 1000l. The call proposed to be made upon the present occasion would, with the arrears, more than cover the entire liabilities of the company. Another subject for congratulation was the improved condition and prospects of the tin market. Taking all circumstances into consideration, he thought shareholders would agree with him in thinking that the general prospects of the enterprise had undergone a most favourable change, and it was to be hoped the shareholders would readily respond to the call about to be made.

Mr. BATTYE, in reply to a question, stated that through the courtesy of Mr. Noakes, the Chairman of Great Wheel Vor, he had been supplied with a transverse section of Metal shaft, by which it was clearly proved that, as the development of Penhale progressed, it in every way assimilated to Great Vor. As, for instance, the underlie of the lodes were identical, and a slide had been met with in the ore ground similar to that seen in Great Vor. The lode in Great Vor had not been seen for the last 13 fathoms, and it was expected that when it was cut it would be found productive for tin, as had been the case with their neighbour under similar circumstances.

The report and accounts were received and adopted unanimously.

A call of 10s. per share was made.

A vote of thanks to the Chairman concluded the proceedings.

FOREIGN MINING AND METALLURGY.

The Belgian coal trade continues quiet. At Liège coke alone remains in demand, and is sought after at easily sustained rates. At Mons coal maintains former quotations with difficulty, but coke is in good demand; supplies are taken off at 17s. 3d. per ton for washed coke, and 14s. 9d. per ton for unwashed coke. The Charleroi Chamber of Commerce has pronounced unanimously against a customs union with France. The house of Acoz has just concluded a contract for 500,000 tons of hammered rails with the Belgian General Railways Working Company; the price of these rails is 77. 6s. 6d. per ton. This is, we believe, the only order of importance which has been obtained of late in Belgium, but at present the state of affairs remains very good. Notwithstanding the augmentation in the manufacture, stocks do not appear to be accumulating. The prospects of the Belgian iron trade may, indeed, be pronounced favourable, but some apprehensions appear to be entertained as to the effect of probably English competition. The Jemmapes blast-furnaces have been re-lighted by Messrs. Demerbe and Co. At Charleroi casting pig, No. 5, has made 32, 25, to 34. 4s. per ton; and refining pig (hard iron), 27. 18s. to 31. per ton. Rolled iron, No. 1, has made 61. 8s. per ton. For ordinary plates the quotation has been 81. 12s. per ton; and for boiler-plates, 91. 8s. per ton. The Luxembourg Railway Company has been appealed to to reduce its tariff for the conveyance of minerals from Athus to Charleroi. The present tariff is very high, and the industrial group of Charleroi would gain considerably if it had not to pay more than 5s. per ton from Athus to Charleroi. The house of Acoz of the local industrialists appear to be scarcely reconcilable with the interests of the Luxembourg Company; and unless the deliveries from the Haute-Marne become sufficiently large to check the use of the minerals of the Luxembourg, a reduction of tariff would seem to be improbable.

The old steel works at Haumont have been sold for 13,200l., to some Franco-Belgian industrialists, who intend to apply themselves to the manufacture of T-irons. At St. Dizier quotations for pig show some improvement; this may be regarded as a legitimate consequence of the advance which has taken place in iron. Previously established quotations have been firmly maintained in France during the last week, but there has been no fresh advance. The production is increasing as well in France as in Belgium.

The aspect of the French copper markets is not altogether favourable, transactions being excessively moderate, while prices show a certain feebleness. At Havre, Chilean has made 71l. per ton, Paris conditions; ditto in ingots, 78l. per ton; Peruvian minerals (pure standard), 72l. to 74l. per ton; minerals from Lake Superior, 83l. to 93l.; and Baltimore, 78l. to 89l. per ton. At Paris feebleness has been pronounced, and prices have been maintained with difficulty. At Marseilles the unfavourable tendency of the market has become more decided; Toki is quoted at 68l.; Spanish, 70l.; and Chilean and Peruvian, 78l. per ton. The German markets have generally followed the retrograde movement of those of other countries. The Hamburg market has, by a rather strange anomaly, having regard to the general state of the trade, presented a more satisfactory aspect. The Dutch

markets have remained stationary. At Paris the quotation for Banca tin is 1482. per ton, while Straits has made 1461., and English 1441. per ton. The price of tin has scarcely varied at Hamburg. Speculation has carried the price of Banca tin at Rotterdam to 86 fls. on the conditions of the public sales, and 85 fls. ordinary conditions. The reaction which might be expected to take place after this exaggerated upward movement has since set in. The last advices from Batavia inform us that the Government has invited tenders for the conveyance of 60,000 ingots of tin from the island of Banca to Java. This quantity is irrespective of the ordinary transports made by small vessels bringing rice from Java to Banca for the wants of that island. We may, then, expect heavy arrivals of Banca towards the end of the present year, and a portion of these heavy arrivals may possibly be sold at the public sale in September. All this has had an influence on the Dutch markets, upon which Banca had at the last dates changed hands at 82½ fls., while Biliton was obtainable at 82 fls. Heavy deliveries of this latter description are also anticipated. At Amsterdam, Banca has closed rather more feebly, at 82½ fls. The official stock of Banca in Holland is returned at 130,879 ingots, including 21,000 ingots which the Society of Commerce has reserved for its autumn sale. The French lead markets show little change. At Havre soft Spanish lead, first fusion, has made 194. 4s.; and lead from other sources, 191. 4s. to 191. 8s. per ton. At Paris, Spanish lead has brought 191. 6s., and other marks 191. 6s. to 191. 8s. per ton. The article has been firm at Hamburg, and in good demand. On the Dutch markets there has been scarcely any variation in lead, except that English and Spanish have been in rather the demand. The tendency of zinc has been rather feeble at Paris and Havre; Silesian has made 217. 12s. to 217. 14s. per ton.

The Rive-de-Gier Collieries Company shareholders have approved the accounts for 1868, and have fixed the dividend at 3s. 8d. per share. The Orleans Railway Company's report states that the capital engaged by the company in its Aubin Works is 654,422. The production effected at these works in 1868 amounted to 186,123 tons of coal, 26,517 tons of rails, and about 329½ tons of argilliferous lead minerals. Almost all the coal extracted was employed to meet the requirements of the forges, or those of the company's lines, so that only 20,677 tons were available for sale to the public. The sale of argilliferous lead treated produced 6389L., and a considerable quantity of minerals not treated was left in store at the close of the year. The directors have commenced some exploratory works in an addition made to their concessions by a decree of Aug. 5, 1865. The Aubin forges are preparing to manufacture rails of a steel description of iron, the use of which is increasing on the system. The net profits of the Eschweiler Mines and Foundries Company for 1868 are returned at 35,244 thalers. This profit was obtained after payment by the company of 56,309 thalers for preparatory works, and 24,117 thalers for new constructions. Of the net profits of 1868, 16 per cent. was applied to the reserve fund, and 3 per cent. to the shares (second series). These attributions absorbed 30,786 thalers, leaving 4457 thalers to be carried forward to the credit of 1869. The payment of the dividend on the shares (second series) is being made in obligations of 160 thalers each, bearing interest at the rate of 5 per cent. per annum from April 2, 1869, and redeemable April 2, 1870.

THE GOLD MINES OF VICTORIA, AUSTRALIA—No. III.

The difficulty of keeping companies of a progressive character fully supplied with the necessary capital, notwithstanding the rapid accumulation of capital and the wonderful successes in mining which have been recorded, is far greater than most people would conceive to be likely. The fact is, however, that the subscribed capital for progressive mines exceeds by many times the whole amount of money in the colony available for such purposes; and this has been the actual state of things at any period during the past decade of years. The consequence is that, with the exception of a few favoured mines, which promise a more than ordinary rapid development, the majority of undertakings have a languishing, fitful sort of life, until the process of time lifts them into the Dividend List. Even then the holders of shares are unable to resist the temptation of early dividends, in spite of their being obtained at the expense of the vigorous and prompt development of the mines themselves. Shareholders are compelled to sacrifice the future to their present needs. The history of gold mining in Victoria is made up of such experiences. It is the exception quite where capital is forthcoming in proportion to the requirements of the mine. There is hardly a successful mine worth mentioning shares in which have not been forfeited during the early stages, because of the impossibility of the holders to meet their engagements on the one hand, and the difficulty of finding a market for the shares on the other. The faith of people in their mines is generally a long way ahead of the capital at their command. As a recent instance may be mentioned the case of the Sadowa Company, at Talbot. The country is similar in its character to that of Ballarat, the miners there working the old river beds below a basaltic table land. The company referred to was formed to purchase the claim and plant of another company, but the total amount of money it was enabled to raise was only 1200L. Out of this very limited capital the purchase money (1000L.) had to be paid. The company was, therefore in this position—it had possession of the mine, but was without any capital whatever to work it. The only alternative left the shareholders was to let the mine on tribute, and this was forthwith decided upon. The tributers began operations on May 1, 1867, and washed out their first gold on September 23 following. From that date up to the close of the year 1868, or a little over fifteen months, they had won gold of the value of 32,677. 6s. 10d. The Sadowa Company received in tribute 5845L. 0s. 1d., a very excellent return for their first outlay of 1200L. The tributers themselves (50 in number) have not fared badly, having divided for the last three months of the year 1868 93L. 10s. each. The mine gives constant employment to an average of 110 men. The company's claim has an area of 143 acres, and the width of the lead (alluvial) being worked is about 700 feet. Instances of the kind just narrated could be quoted almost *ad infinitum*. The Winter's Freehold and the Great North-West Mines—moieties of which are now offering in the English market—are not likely to stand still for want of local capital, even supposing such a contingency as their total neglect by English capitalists possible. It is one thing, however, to provide capital to keep moving, but quite another to raise the capital which should be ample in every respect to carry on mining operations vigorously, and on a scale commensurate with the magnitude of those two undertakings. Alluvial mining is just one of those pursuits of which it may be said—"If I were well I were done, then I were well that I were done quickly." The areas of these alluvial mines being defined, and gold, unlike almost all other metals, liable to no fluctuation in price, it is manifestly to the interest of everyone concerned that the gold should be won in the shortest possible time. In any case, working out these extensive properties will afford employment to large numbers of miners for a great many years to come, to say nothing of the possibility, or rather probability, of quartz lodes being discovered, in which case they will become permanent undertakings, and may be expected to give profitable occupation for generations.

The mines which about on the Winter's Freehold have all been great successes, with one exception, and that one has proved the richness of its ground, and is now sinking the shaft deeper, in order to work the gutter to better advantage. With the single exception just referred to, they have everyone paid dividends in excess of their paid-up capital, and with the bulk of them that capital has been returned many times over. Yet, notwithstanding, there is not one amongst the number that did not have to spell its success letter by letter, nor one the early days of which were not fruitful of difficulties, from insufficient capital—insufficient in spite of the great promise as regards the prospects of those undertakings from their very earliest beginning. The result has been that mining has been carried on less efficiently, and the mines have occupied a longer time in developing, than has been consistent with high-class mining. Local capitalists are not in a position to invest their money in undertakings where they would have to wait any time for a return, but they bid liberally for shares in mines as soon as they approach fruition.

There is the Park Company, immediately to the north of the Winter's Freehold, working a run of wash dirt, which is heading direct to the Winter's Freehold property. The Park Company possesses the right to mine only over the comparatively limited area of 123 acres. Its paid-up capital is about 24,000L., and its shares at the present time are selling in the Melbourne market at the rate of 96,000L. for the whole mine. Taking this basis of calculation, the area of the Winter's Freehold property should be worth 1,056,000L. for the right to mine alone, to say nothing of its value as a freehold. This run of gold has been traced continuously from the Sir William Don claim, through the Cricket Reserve, the Newington Freehold, Western Freehold, Southern Freehold, into the Park Company's property, giving splendid returns throughout its entire course, and widening as it goes. There can be no question whatever as to the continuation of this same run of wash-dirt into the Winter's property. The intervening distance is only some 500 or 600 yards, and the position of the deep ground in the northern part of the freehold has been fully proved by the bores which have been put down. A glance at the certified map of Ballarat will be sufficient to convince the experienced miner, and, indeed, anyone having even but a small acquaintance with mining, of the desirableness of the undertaking now offered to the English public. With

an abundance of cheap capital in England, and such surpassing opportunities for investment in some of the most productive mines in Victoria, there ought to be, and will be, no difficulty whatever in leading the one to the other, to the mutual advantage, most assuredly, of the miners of the colony, as well as the investing capitalists of the Mother Country.

LEAD MINING IN WALES.

THE GREAT ROCK.

The success attending the development of judiciously-selected lead mines in Wales, accelerated in no small degree by the facilities now available for conducting all such operations at a minimum expenditure, appears to be very justly proving a growing incentive for the employment of capital in opening up the mineral resources of the Principality. The question now being discussed in the columns of the *Mining Journal*, as to the chances of achieving success by exploring virgin ground as against extending the development of properties which have been productive in former times, need not be referred to in this place, although it may not, perhaps, be out of place to draw attention to it, inasmuch as it cannot fail to be of especial interest to all in any way connected with the subject.

An encouraging feature in favour of the extension of lead mining enterprise is to be found in the fact that from the improved condition of the market for that metal it may be fairly assumed the advance recently recorded will steadily progress, and for this reason—that whereas for the last three years the exports have gradually increased, the imports have relatively decreased. For instance, during the first two months of 1867 there were imported 4005 tons of pig-lead, as against 3639 tons in 1868, and 3626 tons in 1869; while, on the other hand, the exports during the same period were 7785 tons in 1869, as against 6003 tons in 1868, and 3073 tons in 1867. Of the 7785 tons exported during the first two months of this year, no less than 1900 tons were sent to China.

The most recent enterprise introduced is that to which attention was directed in last week's *Journal*—the GREAT ROCK LEAD MINING COMPANY. The property acquired has been for some time in course of development, and such results have been attained as to leave no doubt in the opinion of the most accredited practical authorities upon lead mining who have inspected the mine that a comparatively small expenditure of capital will lead to a remunerative condition. Capt. John Kitto (of Brynpostig and Mid-Wales Mines) states that the one thing required to ensure success is that the operations are conducted with spirit and economy. Capt. Edward Rogers (formerly agent of the celebrated and profitable Tamar Silver-Lead Mines), referring to the natural facilities with which the mine is provided, directs attention to the circumstance that there is a supply of water near at hand at all seasons of the year which can be made available for all purposes, such as pumping, drawing, crushing, &c. This is of great importance, as no steam-power will be required. The situation of the ground is likewise well adapted for large dressing-floors. He adds that he has been for several years engaged in lead mining in Devon, Cornwall, Wales, and Ireland, and for nine years an agent at the once celebrated Tamar Silver-Lead Mines, and he never saw such facilities throughout as there are at the Clegr Mawr Mine, together with the favourable character of the lodes for the production of lead ores.

Capt. Abram Ralph (mineral agent in Wales of Sir William Williams) suggests some alterations with respect to the position of the machinery, and estimates that with the expenditure of less than 1000L., the mine will be in a position to at least pay all the requisite costs. Captain R. Rowe (of the Great Laxey Mines) describes the rock or stratum of the mine as being of a soft clay-slate of a most congenial kind for ore, easily worked, and, together with the lodes, present to his mind a most striking resemblance to the great ore-producing mines of Cardiganshire, to which, in his opinion, this will not be second on being similarly opened up and worked. This statement is confirmed by Capt. F. Evans, who states that the mine can be very cheaply worked; that the formation admits of an easy and speedy progress in the driving and sinking; and that there is also a large supply of water for winding, pumping, and crushing the ores, rendering steam machinery quite unnecessary, whilst the rail running within a short distance supplies every convenience that the mine can require. Taking all these things into account, together with the prospects for lead ore already discovered, and the indications for the future, Capt. Evans is of opinion that the Great Rock is a speculation of no ordinary character, and can be recommended to parties desirous to invest in mining speculations, believing the result will be profitable and successful. Captain Evans (upon whose report or recommendation, it is stated, the Van Mine was purchased) adds that by reference to the Ordnance Map it will be seen that, although the Great Rock Mine is a considerable distance from the Van, it is in reality one and the same district.

To this testimony Capt. John Kemp (the manager of the mine), after describing the character of the different lodes, adds that there are important trials to be made, such as driving the shallow adit east on the lode, where there will be immense backs with short drivings, and in which drivings, no doubt, good discoveries will be made, for there are to be seen large detached pieces thrown down from the back of the lode, weighing tons in a piece, full of lead; therefore, Capt. Kemp does not hesitate to say, after the completion of the machinery and the work named, that with the employment of from 40 to 50 men, from 40 to 50 tons of lead per month will be raised, which will leave nearly one-half profit. Capt. Kemp has been connected with the Cardiganshire mines for upwards of 20 years, which are amongst the best paying mines in Wales, and he finds that the lodes in this mine are in the same stratum, a congenial killas, and identical with those of Cardiganshire. Therefore, it is his firm opinion that the Great Rock will be found to be a valuable and lasting property.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

WEST CHIVERTON.—The shaft is being sunk below the 120, in a fine channel of ground. The 120, on both lodes, which formerly used to be pitched upon as one, is worth 70L. per fathom. Without calculating stops and pitches, which are very productive, the other parts of the mine—ends, rises, and winzes—are worth 360L. per fm. It will be seen from this the mine is looking well, and likely to pay the present price of 24,000L. a-year for a long time to come. The shares have fallen nearly 10L. each within the last few months, chiefly, as it is understood, through large sales made to re-invest in a Welsh lead mine, which has lately risen to 300,000L., and which will commence with a dividend of 5s. per share in June. It has been reported that the large holder in West Chiverton has sold, which is not the fact—on the contrary, that gentleman and his friends have been buying. At the present price, the mine pays 16 per cent., or more than any other dividend mine, while the reserves are estimated at a very high figure. The next dividend, of 2L. per share, will be in May.

AT EAST WHEAL GRENVILLE the prospects have somewhat improved during the past week, the 65 and 65 fathom levels presenting very strong indications of an early improvement. The latter level has been driven more than 30 fathoms through a fine course of ore, and there is a good lode gone down in the bottom of the level, whilst in the back (and of which a very small portion has been worked away) there is a lode which will be taken away at about 1s. 6d. in 1L. tribute. The sampling next week will be about 250 tons of copper ore, and from present appearances the following sale will largely exceed the present one.

AT WHEAL GRENVILLE, in the 90 fathom level cross-cut, the ground has undergone a most favourable change in the last day or two, and the agents think the lode is not far distant. The tin sold for March realised 911L.

PEDN-AN-DREA.—These extensive mines continue to open out to the satisfaction of the shareholders. An improvement has lately taken place in the bottom level—140 west—now worth 40L. per fm. This added to the richness of the north lode, at the 47, 55, and 90 fathom levels, must make these mines highly profitable.

WEST VAN (Llanidloes).—The proprietors of this valuable property, which has been so favourably reported upon by the best mining authorities in Wales, are making arrangements for carrying out extensive operations without delay, and are sanguine of opening up a very important mine.

MOLD LEAD MINES (Flintshire).—A most excellent discovery of ore has been made at these mines, having intersected a side lode north of the main lode worth from 30L. to 40L. per fathom. The ground is exceedingly promising, and holds out great encouragement to its proprietors, as the machinery now erected on the main lode will unwind this discovery 30 to 40 fms. below the present bottom.

SOUTH TREVENNA.—This mine during the last week has shown signs of considerable improvement. The hard nature of the lode, so difficult to treat, has changed to a beautiful peachy lode stuff; much easier for the stamps, which are knocking this out freely. The work is better, and they are able to clean it off without burning, being a saving of time and money. There is every appearance of its being one, which will enable the returns to be increased. Another sale of tin is to be made in about a week. Men are put on to drive the bottom ends, so as to obtain 20 fathoms of backs for stopping between that and the adit. It is intended also to discover the rich copper lode, a branch of which was

cut many months back in driving, and yielded yellow, peacock, and malachite copper ore, of the value of 40L. per fathom, and if the lode turns out equally as good the shares must rapidly run up in price.

SOUTH MERLLYN.—A discovery of value is likely to be made at the 40 fm. level north, the lode presenting the usual indications for making rich deposits of lead as the level named becomes extended. It must also be remembered that the lead discovered at the 30 can be worked, which has been extended about 20 fms. in from the shaft. This is important, and from the one point mentioned profits are likely to accrue to the shareholders. In the 40 south the lode is also becoming more valuable, being now worth fully 6L. per fathom, and the ground easier for progress; the lode is increasing in size, being now 3½ ft. wide. The sett extends for nearly 300 fms. on the course of this one lode, in virgin ground. Altogether the prospects are very encouraging, and the mine is likely to prove very profitable.

TRELYON CONSOLS.—This is a tin mine of great promise, though as yet almost unknown to the general public. It adjoins the rich Providence Mines. It is only in 548 shares, now making profits, and must, it is considered, shortly prove a very desirable investment. Hitherto its intrinsic worth has been known only to the shareholders, who are principally local, none of whom have taken any steps to obtain publicity for their property. The nominal market value, according to late quotations, is 5L. per share, or 2740L. for the mine and machinery; whereas the adjoining mine, known to public favour, is 47,000L. in value.

MID-WALES.—The shareholders will be pleased to learn that the sale of ore just made realised 1L. per ton more than the last sale. The ore from the neighbouring Van Mine realised 13L. 13s. per ton, whereas that from Mid-Wales now realises 12L. per ton, and it is confidently anticipated that, as in Van, the ore will continue to improve in depth, the characteristics of the lode in each mine being identical.

FOREIGN MINES.

YORK PENINSULA MINING COMPANY.—The shareholders of the company have taken up a sufficient amount of the debentures offered to them to justify the directors in ordering the resumption of operations at the Kurilla Mine, and a telegram has been sent to the committee making absolute certain contingent instructions to that effect, which left London on the 26th ult. The board received advices by the last mail of the shipment by the Duke of Sutherland of 993 bags of ore of good percentage, raised from the Kurilla Mine. They have also advices of a sample bag of ore per cent. diamond, taken from a deposit of ore in the top of the 35 east, which had been discovered dipping eastward before the workings were suspended. Respecting this ore, the committee write that it is "by far the best the mine ever produced." They say, also, that it is the opinion invariably expressed "by every competent person who has seen the mine that at a greater depth far better results may be looked for if a sufficient number of miners be set to work upon it." The directors have very lately received a proposal to lease or purchase 300 acres of the surface of the Bon Accord property, but have not thought it advantageous for the company to entertain it.

CHONTALES.—Consuelo and Estrella Mines report for February:—No. 4 stope, in back of No. 2 level, east of No. 2 shaft, has been stope 27 varas; lode 4 ft. wide, worth 12 dwts. of gold per ton. No. 5 stope in back of No. 2 level, east of No. 2 shaft, has been stope 1½ varas; lode 4 ft. wide, worth 15 dwts. of gold per ton. No. 6 stope in back of No. 2 level, east of No. 2 shaft, has been stope 20½ varas; lode 4 ft. wide, worth 10 dwts. of gold per ton—at present worth 1 oz. No. 7 stope in back of No. 2 level, east of No. 2 shaft, has been stope 1½ varas; lode 4 ft. wide, worth 10 dwts. of gold per ton—at present worth 1 oz. A stope in bottom of No. 2 level, east of No. 2 shaft, has been stope 12 varas; lode 4 ft. wide, worth 14 dwts. of gold per ton. During the last week we have stope our stope home to the new ground, which is showing a lode from back of No. 2 level of 4 ft. wide, worth 15 dwts. of gold per ton, 1 oz. per ton. Should this lode continue in value, I am confident we shall do better in the future than in the past. I have known Consuelo nearly four years, and I have not seen the stope looking so well as at present. No. 4 deep adit level has been driven 7½ varas; lode small and poor for the last three months, but within the last week we have cut very good ground, which I hope will improve the lode, and enable us to go on a great deal towards the ore ground. Driven east from Piper's shaft on course of lode 13½ varas; lode 3 ft. wide, for the past month worth 3 dwts., now poor and disordered. Driven on No. 2 level, east of No. 2 shaft, on course of lode 8 varas, for the first part of the month worth 6 dwts., and 4 ft. wide, now 2 ft. wide, worth 3 dwts. No. 3 level, which has been suspended for some time, in consequence of being hard and our native miners not being able to work it, has been resumed this month, which I intend to push on by the assistance of Englishmen, as I still believe we shall cut the ore ground in this level by the appearance from the ground above. The quartz sent to mill this month is 751 tons from the mines, which I estimate at 12 dwts. per ton; this I estimate to be about 450 ozs. of melted gold. More quartz would have been sent to mill this month, but our No. 3 level broke down about 10 fms. in length. I passed through this point about mid-day on the 23d, and at mid-night I was called by the night-men, when I found the above damage done, which took three days to repair the same. At present our tramways and levels are all clear, and in working order, and every precaution has been taken to keep down the cost. The mines are looking favourable for a continuous supply of quartz, and of better produce than in time past.—JOHN TONKIN.

Feb. 5.—San Antonio Mine: In the past month the deep adit level has been driven 9½ varas, on a lode from 2 ft. to 2½ ft. wide. The first 5 varas of this drive would yield 2 dwts. of gold per ton, after which the lode improved to 4 and 6 dwts. per ton, but this improvement did not continue more than about 3 varas in length, when it again declined in value, and will now yield about 2 dwts. per ton. We have stope in the back of the deep adit level, west of shaft, 27 varas; lode 3 ft. wide, worth on an average throughout the month about 2 dwts. per ton; this stope is suspended. The cross-cut driving towards San Antonio old mine has been driven 29½ varas, and we have about 40 varas more to drive before reaching the old mine. At Trinidad Creek, we have driven the deep adit east, on San Benito lode, 19 varas; lode in a disordered state, and poor. We have put the stamps in the past month 267 tons of quartz—145 tons broken from the end and stope of the past month, worth about 2 dwts. per ton; and 122 tons from the still broken the month before, worth 5 dwts. per ton.—JOHN ANDREWS.

Santo Domingo and Trinidad Mine: During the past month No. 1 stope, in back of No. 3 level, has been stope 6½ varas, yielding 5 dwts. of gold per ton. No. 3 stope, in back of No. 3 level, has been stope 15½ varas, yielding 6 dwts. of gold per ton. No. 4 stope, in back of No. 3 level, has been stope 4 varas, yielding 5 dwts. of gold per ton. Valle's shaft has been sunk 7 varas, and communicated with No. 3 stope; the lode is 2 ft. wide, yielding 7 dwts. of gold per ton. No. 1 level, east of Valle's shaft, has been driven 12½ varas, yielding 6 dwts. of gold per ton. Side of No. 1 level, west of St. No. 3 level, which has been taken out 8 varas in length, and 2 ft. wide, yielding 6 dwts. of gold per ton, way's winze, in bottom of same level, has been sunk 5½ varas, yielding 5 dwts. of gold per ton. Trinidad deep adit level has been driven 7½ varas on a lode 5 feet wide, producing a little gold, but not sufficient to value. Trinidad old level has been secured 10 varas, and driven 5 varas on the course of the lode, which is 3 ft. wide, producing a little gold, but not sufficient to value. Trinidad old level, west of the cross-cut, has been driven 16 varas; the lode is 6 feet wide, 2 ft. of which is yielding 3 dwts. of gold per ton. No. 2 stope, in back of Trinidad old level, has been stope 15½ varas, yielding 5 dwts. of gold per ton; the lode is 3 ft. wide. No. 3 stope, in the back of the same level, has been stope 5½ varas; the lode is 3 ft. wide, yielding 5 dwts. of gold per ton. A level has been driven on the course of Trinidad lode, east of Trinidad shaft; the lode is 4 ft. wide, producing a little gold, but not enough to value. West San Benito deep adit level has been driven 7 varas; the lode is 5 ft. wide, worth 2 dwts. of gold per ton. The quartz sent to mill for the month is 388 tons from Santo Domingo, which I estimate at 6 dwts. of gold per ton, also 132 tons from Trinidad, which I estimate at 5 dwts.; in all I estimate to be about 141 ozs. of melted gold.—WM. EVANS.

JAVAIL.—The directors have advices from Dr. Seemann, dated March 8. Everything was going on perfectly well. Mr. Simpson had returned from San Francisco with all the machinery required, and a great part of which had arrived at the mine. All the works in progress were proceeding satisfactorily, and the monthly expense had been still further diminished. Dr. Seemann says they have now literally thousands of tons of ore on the surface, and get excellent stuff by driving tunnels on the lode. The remittance is 5613½ ozs. of gold and 175½ ozs. amalgamated copper and gold, of which one-third is gold; the whole valued at \$8251. Dr. Seemann says—"We have this month taken only 478 tons of ore to the mill, carefully counted, which of itself is a proof that the Javail preserves its uniformly rich character; but as long as we had no machinery to cope with all our tallings, and had to work with only a quantity of the requisite power, we could not do better than we have done." The health of the mine was excellent, and the Government had cordially sanctioned the establishment of an English Vice-Consulate for the Chontales district. From the general tenor of Dr. Seemann's letter it would appear that the actual working cost would now be kept well under 500L. a month, so that even at the present rate of remittance there would be a good profit. The whole of the above remittance is, however, derived from the working of a portion only of the stamps, and with no motive-power except the small turbine, competent to work only from one-half to two-thirds of the stamps, and at little more than half the proper rate of revolutions per minute.

IMPERIAL SILVER QUARRIES.—Lewis Chalmers, March 1: Since my last report of the running, the rock in the tunnel has continued to improve—so much so, that I am able to announce to you 18 feet for last week, at a cost of only 87-66 per foot. About 2 P.M. on Saturday I got a little harder to drill, but still blasted well; I do hope we may have a run of it. Mount Bullion made 12 ft.; Globe, 2 ft.; Michigan Indian Chief, 5 ft.; Forest Belt still inactive. The Morning Star Company have again struck rich black ore in their new shaft. I have just seen a fine specimen of rich chloride from the Eberhart Mine, White Pine. The severe storm has put a stop to further developments there in the meantime, and fever and small-pox are playing havoc among the adventurers. That goodness we do not require to go there for ore; push your tunnel, and you have a White Pine at home. The San Francisco Herald of the 21st ult. contains a short notice of our mines.—March 3: The January account was forwarded on the 9th ult. During the month (from 4th to 30th inclusive) we ran 41 ft. of tunnel, at a cost of \$14-62 per foot. The total labour cost for February was \$550. We ran 59 ft. of tunnel, and the cost was \$8-72 per foot. In arriving at the cost per foot I reckon the cost, of course, of the quantity of powder, candles, fuse, &c., used per month, but not soap, cartridge paper, wear of steel, or hammer handles, which are too small to be appreciable by the month. They will appear, as formerly, at the year's end. Nor do I estimate the cost of freight, as the same for present supply was all charged to the by-gone year, and not carried forward as a reserve. I am still running only two shifts, and have given my reasons therefor. On Sunday last we were in 740½ ft., or 50 ft. from the line of the Triumph croppings.—March 8: Our running last week was 17½ feet. From Saturday afternoon to Thursday the face of the tunnel assumed much of its old appearance—compact, and free from seam. On Thursday night a soft streak made its appearance in the floor on the left-hand side, and soon spread over the face, and in which we made excellent headway. If this continue, I will give you 20 ft. next week. We are now in 755 feet.

WEST CANADA.—F. Williams, March 15: Huron Copper Bay: The stope in the bottom of the 20, east of Stephens' winze, will yield from 2 to 2½ tons of ore per fathom. The stope in the bottom of the 20, west of Palmer's shaft, will yield 2½ tons of ore per fathom. The stope in the bottom of the 20, east of this shaft, is worth from 2½ to 3 tons of ore per fathom. The stope in

the bottom of the 35, east of this shaft, is worth 2 tons of ore per fathom. The slope in the bottom of the 20, east and west of Powell's winze, on the Fire lode, will yield 2½ tons of ore per fathom. The slope over the 35, east of Brays, will yield 3 tons of ore per fathom. The lode in the winze sinking below the 35, east of Brays, will yield 3 tons of ore per fathom. The lode in the 30 has fallen off in value since last reported on; but no doubt it will soon improve again.—Wellington Mine: The slope in the bottom of the 36 will yield 2 tons per fathom; the slope in the bottom of the 24 nearly 2½. The lode in the 24, east of Mitchell's shaft, will yield 2 tons. The slope east of Rowe's shaft still continues to look well, and will yield over 2½ tons per fathom. The slope west of this shaft will yield 2 tons of ore per fathom. The slope in back, west of this shaft, is now worth 1½ ton of ore per fathom. I am happy to inform you that everything is going on well.

LUSITANIAN.—April 6: In sinking Taylor's engine-shaft below the 120 the lode is worth 2 tons per fathom. We are down to the 130, and begun to drive east and west of the shaft. In River shaft, sinking below the 100, the lode is 1½ ft. wide, composed of flookan. In sinking No. 76 winze below the 23, west of Perez's shaft, on Basto's lode, the lode is 9 in. wide, composed of flookan. In sinking No. 78 winze below the 8, west of Perez's shaft, on branch, the lode is worth 1 ton of ore per fathom.—Levels on Basto's Lode: In the 130, east of Taylor's, the lode is worth 1 ton per fathom. In the 130 west the lode is worth 1 ton per fathom. In the 120 east the lode is 2 ft. wide, composed of flookan and quartz. In the 120 west the lode is worth ½ ton per fathom. In the 110 east the lode is 2 ft. wide, composed of flookan and loose country. In the 110 west the lode is 2½ ft. wide, composed of quartz and loose country. In the 100 east of River shaft, the lode is 1 ft. wide, composed of dry flookan. In the 70 the lode is 3 ft. wide, composed of quartz and flookan. In the 38, west of Perez's shaft, the lode is poor.—Levels on the Branch: In the 18, west of cross-cut, the lode is worth 1 ton per fathom of copper ore, and good stones of nickel. In the 18 east the lode is worth ½ ton per fathom of copper ore. In the 8, west of Perez's shaft, the lode is 6 in. wide, containing good but small stones of ore.—Levels on Ponte Lode: In the 28, east of the slide, the lode is 8 in. wide, composed of quartz and country.—Cross-Cuts: In the 28 ft. level cross-cut, south of Basto's lode, and west of Perez's shaft, the ground is improved.—Carvahal: In sinking the shaft below the 40 the ground is just as usual, but no lode to value. In sinking No. 6 winze below the 20, east of incline shaft, on great lode, the lode is 2 ft. wide, composed of quartz and lead, worth 1½ ton per fathom.—Levels on the Great Lode: In the 40, east of incline shaft, the lode is 3 ft. wide, and worth 1 ton per fathom. In the 30 the lode not being taken in consequence of so much water. In the 20 the lode is 8 ft. wide, and worth for lead 2 tons per fathom. In the 10 east the lode is 6 ft. wide, and worth 1½ ton of lead per fathom.—Levels on Caunter Lode: In the adit level, west of incline shaft, the lode is 1 ft. wide, worth 1 ton of lead per fm. In the 10 west the lode is split into branches, yielding stones of lead.

PONTGIBAUD.—W. H. Rickard, April 2: Roure Mine: The 140 metre level, south of Richards's shaft, continues in a lode composed of red, jointy quartz, mixed with soft, decomposed gneiss. The 80 metre level south yields a little low-quality saving work. A winze in the 80, north of shaft, yields ½ ton of ore per fathom. The 60 metre level, south of Agnes's shaft, yields ½ ton of ore per fathom. The 20 metre level cross-cut has intersected Virginie's lode, which is 1 foot wide, of a very kindly appearance, yielding about ½ ton of ore per fathom. The lode in the stollen south has produced some pretty good ore-stuff in the past month, but although maintaining a strong, kindly appearance, does not produce much ore at this moment. The stollen cross-cut west of Virginie's shaft has met with no change worthy of notice. Our stopes in this mine, reduced to six in number, with the tribute pitches, yield about the usual quantity of ore each.—La Grange: The 100 metre cross-cut, at Nosky's shaft, has entered the lode 2 metres, which is exceedingly wet and troublesome, composed of dark quartz, spotted with grey muddle. The 80 metre level north yields ½ ton per fathom. The winze sinking in this level, near the shaft, yields stones of ore, but of no great value. The 20 north is soft and poor. We have one stope and eight tribute pitches, yielding about their usual quantity of coarse work.—Mioche: The adit north, on No. 6 lode, is soft and poor. The adit cross-cut east has met with soft, lodey ground, of a disordered character.—Bouzarat: We have cut a small vein of clay, and have set to drive on its course northward, hoping it may prove to be the lode, and present a better appearance when the level gets into firmer rock.—La Brousse: The 100 metre level, south of Basset's shaft, yields 2 tons of ore per fathom. The same level, on the western part of the lode, yields a little coarse saving work. The 80 metre level south is poor. A winze below this level yields 1½ ton per fathom. The 60 south looks very promising; the lode is making good ore in the under wall, yielding 1½ ton of ore per fathom. The 40 south is unproductive. The ends of the 20 metre level, both north and south of whin-shaft, on the western lode, are in soft, unproductive ground. Our 11 tribute pitches, well—Tranval: The 70 cross-cut, at Tranval St. Mathew's lode, has entered speedier ground. We are now making good progress. The 50 metre level, north of junction, yields stones of ore. The rise in the same level south is holed to the winze from the 8 metre level, giving us good air, and opening good tribute ground. The 50, south of cross-cut, is unproductive. The same level, north of cross-cut, yields 1 ton of ore per fathom. The 30 metre level north yields 1½ ton per fathom. The same level south yields stones of ore. The 8 metre level north yields ½ ton of ore per fathom. The adit level, south of Bonoux's shaft, is a little stiffer; the lode poor. Our 12 tribute pitches yield pretty well on the whole.—Surface: We have begun working at the new lavers. Our samplings have amounted to 295 tons.

PESTARENA UNITED.—T. Roberts, April 9: Pestarena Mine: The lode in the 46, south from Aquavite engine-shaft, yields 7 tons of ore per fathom, worth 2 ozs. of gold per ton. Since our last report we have commenced to sink on the course of ore behind this end; the lode yields 8 tons per fathom, worth also 2 ozs. of gold per ton. In the cross cut east at this level we have reached a branch of auriferous pyrites, and expect to reach the flat lode in this cross-cut shortly. The lode in the end of the 33 south has improved, yielding now 4 tons of ore per fm., worth 18 dwts. of gold per ton. The bottom stope in Peshiere is the same as last week. The lode in the end of the 16, driving north at the 70, yields 1½ ton of ore per fm., worth 15 dwts. of gold per ton. The lode in the end, driving north at the 46, on No. 2, yields 4 tons of ore per fm., worth 14 dwts. of gold per ton. In the end, driving south at the 16, we have discovered some branches of ore in the east side, as yet not much to value, but looking very favourable for a speedy improvement. I am pleased to state that the weather is fine, and the water in the Auza is gradually increasing. We have started more mills at Pestarena. The snow has been cleared from the Slead road, leading to the Cane Mine, and we are now engaged on the establishment next week. Nothing new at the mine.—Val Topa: The snow has been cleared from the Slead road, and we commenced the carriage of ore on April 7. In the Marzazza we have water to run some of the small mills, and calculate next week to work the whole number—116. At the mine we have a considerable improvement in the stopes in back on the flat lode at No. 2 level. The ore from this stope is now first-class, and some of it will be brought to the establishment and treated this month. At No. 3 level, in the end driving south on a small lode from the outer cross-cut, we have reached some ore; a trial will be made of it.

CAPULA.—Capt. Paul, March 7: We have sent to San Cayetano hacienda for redwood for 12 carriages of metal; this week we shall send sufficient for two carriages, one of 10 carriages and another of 12. They have not yet sent the first tarta in the patio; the heads of the tanks are taken up, but the tail is still too wet. I expect it will be incorporated this week.—San Juan Hacienda: We have nearly all the ironwork ready for the water-wheel. The smith will soon commence about the work for the stamps; he can only work part of his time for the hacienda, as he has to make all new tools for the mine and steel the borers, &c. (it takes 12 quintals of borer iron for the shaft alone; the number of borers required altogether is very large). The greater part of the timber is in order to put together the wheel, which we shall accomplish as soon as the wheel-pit is finished. The patterns for the gudgeons of the wheel and stamps axle are finished and sent to the foundry; we shall get everything in order by the time the wheel-pit is finished. The masons are employed building the walls of the hacienda, such as they are; we cannot get good masons to go to Capula, and shall have to build the work with such as we can get. I think we shall get everything ready to commence reducing the metal by the end of the dry season (end of June), and as soon as I get the weight of the castings I shall be able to send the directors a pretty correct estimate of the cost.—The Mine: The ground in the shaft is without alteration; last week three English and nine natives sunk half a vara. San Jorge rise is a little more than 20 varas above the Esperanza level. The stopes are without alteration since my last of the 26th ult. We have resumed the sinking of the winze below San Jorge rise and stope, they broke ten bags of best ore in the last week, five of which are very rich indeed. In No. 1 winze, sinking below the Esperanza, the lode is improving, the metal part is much wider; we are in hopes that it will soon be as wide as it was above the level. All the other winzes and levels are suspended for the present, according to orders. I was very sorry to stop San Enrique end of winze.

CORNISH PUMPING ENGINES.—The number of pumping-engines reported for February is 18. They have consumed 1468 tons of coal, and lifted 117 million tons of water 10 fms. high. The average duty of the whole is, therefore, 53,700,000 lbs., lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Chiverton Moor—70 in.	Millions	55.3
Dolcoath—Harriett's 60 in.		54.0
Great North Downs—Sleggan's 70 in.		63.2
North Wheal Crofty—Trevenen's 80 in.		62.7
South Wheal Frances—Marriott's 75 in.		65.1
West Chiverton—Hawke's 80 in.		63.9
West Wheal Seton—Harvey's 85 in.		57.3

ON THE RELATIVE DEMAND FOR LABOUR IN THE AGRICULTURAL AND MANUFACTURING DISTRICTS—ITS CAUSES AND EFFECTS: with Maps and Diagrams, illustrating Corn Law, Stock, Waste, Average of Permanent Pasture and Arable Land in England, and the Percentage of Male Labour employed in Agriculture, Coal Mining, and the Manufacture of Iron respectively. —See *Fraser's Magazine* for APRIL, just published.

MINING IN WALES.—The work in course of preparation by Mr. SAMUEL JENKINS, F.G.S., on the "Mineral Resources of Wales," is now nearly ready for the press. It will contain a chapter on Ancient Mining, the Formation of Lodes; an important chapter on the Formation of Slate, the Duration of the Welsh Coal Fields, the Mineral Wealth of Wales, compared with that of other countries, where Mr. Jenkins will show that Wales is the richest mineral country known. It will also contain notices of the early mines and history of mining, together with the geology of each county. This, besides a vast amount of valuable and necessary information for the practical miner and the adventurer. Mr. Jenkins is an old correspondent of the *Mining Journal*, and has been for years practically engaged in mining.

SCIENCE AND ART.—A striking instance of the immense value a small piece of steel may acquire by the great power of skilled mechanical labour is the balance-spring of a watch. From its extreme fineness and delicacy 400 weight not more than one ounce, and exceed in value 1000l. A most interesting little work, describing the rise and progress of watchmaking, has been published by Mr. J. W. Benson, 25, Old Bond Street, and the City Steam Factory, 68 and 69, Ludgate Hill. The book, which is profusely illustrated, gives a full description of the various kinds of watches and clocks, with their prices. Mr. Benson (who holds the appointment to the Prince of Wales) has also published a pam-

phlet on Artistic Gold Jewellery, illustrated with the most beautiful designs of Bracelets, Brooches, Earrings, Lockets, &c., suitable for Wedding, Birthday, and other presents. These pamphlets are sent post free for two stamps each, and they cannot be too strongly recommended to those contemplating a purchase, especially to residents in the country or abroad, who are thus enabled to elect any article they may require, and have it forwarded with perfect safety.

EXPORTS OF RAILWAY IRON.—The year has opened favourably as regards the shipments made of railway iron from the United Kingdom, the total exports for the first two months of this year having been 80,439 tons, as compared with 74,833 tons in the corresponding two months of 1868, and 46,326 tons in the corresponding two months of 1867. The increase in the foreign demand for our rails disclosed by these figures arises entirely on American account, the exports made to the United States to Feb. 23 this year having been 42,360 tons, against 32,942 tons in the corresponding period of 1868, and 20,321 tons in the corresponding period of 1867. The exports of railway iron have increased this year to Russia, Prussia, France, Chili, British America, and Australia; but they have decreased as regards Spain, Cuba, Brazil, and British India. The last-mentioned market only took 7678 tons of our railway iron in the first two months of this year, as compared with 15,732 tons in the first two months of 1868, and 11,491 tons in the first two months of 1867. The value of the railway iron exported to Feb. 23 this year was 615,043l., as compared with 585,817l. in the corresponding period of 1868, and 394,197l. in the corresponding period of 1867.

ATMOSPHERIC GAS-STOVES.—The application of steam to the manufacture of gas-burners has already been mentioned in the *Mining Journal*, and Mr. LEONI, of St. Paul-street, Islington, the inventor, has now devised an arrangement in which he employs them for cooking purposes. One peculiarity of the apparatus is that the processes of broiling and roasting are conducted by a reflection only of the heat, a method which has, no doubt, great advantages over the direct application of the heat of a gas flame. It is claimed that with a consumption of only 15 ft. of gas a dinner for 12 persons can be cooked in two hours, and that when the stoves are used for heating purposes they do not produce the unpleasant sensation hitherto considered inseparable from gas-stoves.

SETTING BOILERS.—An improved method of setting steam-engine boilers, the adoption of which will, it is considered, prove of great advantage in effecting economy in fuel, has been invented by Messrs. HYDES and BENNETT, of Sheffield. By this arrangement the problem is solved of effecting a thorough intermixture of the gases during its passage through the tubes, while it is of simple construction, and is readily applicable to existing boilers. In the course of their transit from the internal flues to the chimney the heated gases are made to pass over the edges of the four groups of plates successively, and they are thus four times divided out into thin streams, which are made to pass close to the surface of the boiler. The effect of this is that not only are all the particles brought into close contact with the heat-absorbing surfaces; but from the thorough intermixture of the gases every facility is afforded for effecting perfect combustion. The spaces left between the edges of the plates and the boiler surface are so proportioned that the combined areas of the spaces belonging to each group are equal to the area of the flues at other points, so that there is no contraction of the flue area at any one point. The distance pieces or ribs, also, between the plates, from the position they occupy, discharge any dust or soot deposited on them into the flues, where, being clear of the boiler surface, it can do no harm, and from which it can be readily removed.

UTILISING SCRAP IRON OR STEEL.—For the economic utilisation of ends of heavy scraps of Bessemer steel, which is now extensively used in the place of wrought-iron for a variety of purposes, as, for instance, for permanent ways of railroads, in the finishing of which short pieces are cut from the ends, Mr. J. THOMPSON, of Handsworth, Stafford, has just introduced a new invention, and as the utilisation of such ends will generally express the character of his improvements, the description of these will suffice. These scrap ends usually average from 1 ft. to 15 in. long, more or less, and he proposes treating them in two ways. Firstly, by reducing them entirely by rolling in the mass; and secondly, by dividing them by rolling, that is to say, he first heats the lump or scrap end of Bessemer steel, and passes it between two rolls, so turned and arranged that they present V or other shaped projections to the heated metal passed between them, which has the effect of dividing the mass into as many divisional parts as may be suitable by subsequent working and reduction down to desired sizes by rolling. Thus from the means of dividing to that of shaping and elongating the processes conduce to the general improvement of the condition of the metal by solidifying and improving its granular construction. And this same process enables him to treat old worn out rails in the same way, either by operating on them in the lengths or dividing them up, according to the purpose for which such reduced homogeneous iron or steel may be required. And, secondly, his improvements (in dealing with old worn out rails, scrap ends, or lumps of homogeneous metal) consist in so arranging his rolls that the thinner portions, such as the intermediate part of the top and bottom of a rail, shall be supported while the larger portions are reduced. Thus by a series of rolls or grooves a rail end may be first reduced to a flat mass, and then compressed or rolled edgewise, so that the middle portion shall be wrought and be subjected to the beneficial effects imparted by the processes until the whole mass is reduced down to a bar of a suitable or desired form in its transverse section. In no case is the metal while under operation allowed to overlap, an effect he entirely avoids, as the description of metal named will not weld like ordinary iron or steel.

IMPROVED BLASTING POWDERS.—Two new blasting powders are at present attracting attention in America, the one being Hafenegger's explosive powder, and the other a compound of gunpowder and nitroglycerine, called dualine. It appears that dynamite does not give satisfaction except in very sound rock, and that when used where there are seams or fissures a large proportion of the power is lost. The dualine does not seem to have been yet tested, but the trial of the Hafenegger explosive powder has proved very satisfactory. Among the experiments made was one consisting of breaking up a rock of irregular shape, 40 feet long, 25 ft. high, and 20 ft. wide, which rested on a bed of sand where the tide washed entirely round it. The hole, 1½ ft. diameter and 10 feet deep, drilled weeks before, had filled with water from the pouring of the surf over the entire rock. The water being entirely swabbed out, a 1½-in. cartridge, several feet long, was inserted containing the strong, or No. 1, powder. Into this, by means of a funnel and tube, was poured the liquid which renders the dry powder explosive. Top of this was placed a small charge of the weak powder, which, by the power of its concussion, breaks the cartridge containing the strong powder, and exposes it to the fire which ignites the strong powder. No tamping was used. A redwood plug was inserted, grooved on one side to admit the fuse, and the explosive powder No. 2. The charge was placed in about the centre of the rock, the body of which is composed of hard calcareous sandstone, bound partly by quartz. Seams were rent through the entire mass. But a small portion was broken fine or thrown to any great distance, although the rock was well fractured in the centre, the largest pieces—some of them of nearly 20 tons weight—were thrown from the edge. The rock is supposed to have contained about 1600 tons. Parties who have visited the largest rock since the blast, at very low tide, say a considerable portion is imbedded in sand, but that it was completely broken through. It is questionable whether the powder could have been made to act to equal extent by the method to that wrought by the single charge of strong powder. To have done the work with common powder, would have required at least ten times the amount of drilling, and it is the time and cost of drilling, rather than the consumption of powder, that renders blasting operations expensive.

WORKING STEAM-ENGINES.—The chief object of the invention of Mr. E. L. PARRIS, of Mornington-crescent, Regent's-park, is to increase the effective power of steam-engines of all kinds. To this end he introduces compressed air or other gaseous element within the working cylinders of steam-engines, and avails himself of the heat of the steam when partially exhausted to develop the expansive properties of the air or gas, and increase the propulsive force in the rear of the pistons of such engines. In carrying out this invention he connects with the engine an air-pump, worked by proper mechanical adjuncts by the engine or otherwise, and provides in the pipe forming the connection regulating taps or valves for giving an intermittent regulated supply of the compressed air or gas at the proper moment to the cylinders. The compressed air he prefers to store in a receiver, that it may be ready for instant use, and the regulating taps or valves he works by suitable gear worked by the steam-engine, care being taken that it is arranged so as to allow of the taps or valves being suddenly opened at any given point in the course of the piston, so as to allow, when desired, a volume of compressed air to be suddenly thrown in the cylinder behind the piston when in motion. The air or gas being thus brought in contact with the heated steam, suddenly expands, and acting as a propelling power assists in forcing the piston forwards. He does not confine himself to any particular mechanical arrangement for carrying out the principle of his invention, as the designs will necessarily vary according to the nature of the engines to which it may be applied, but in all cases the character of apparatus above indicated will be used.

Creditors of the Penryn Granite Quarries Company (Limited) are required to send the particulars of their claims to Mr. J. J. Harris, of the firm of Addis and Harris, the liquidator, by May 11.

Creditors of the Ipstones Park Colliery Company (Limited) are required to send the particulars of their claims to the Official Liquidator at Manchester, by May 3, the 21st having been appointed by Vice-Chancellor James for adjudicating upon them.

Creditors of the Great Northern Copper Mining Company of South Australia (Limited) are required to send the particulars of their claims to Mr. James L. Price, of 18, Gresham-street, by May 20.

Creditors of the Valgodemard Mining Company (Limited) are required to send the particulars of their claims to Messrs. Alfred Good and J. W. Lukis, the liquidators, by June 1, the 15th having been appointed by the Master of the Rolls for adjudicating upon them.

We find it is again proposed to reduce the number of Copper Ore Ticketings in the county, and thereby lessen the expense to the miners, in consequence of the great falling off in the produce of the Cornish copper mines. The matter will, no doubt, ere long have the consideration it deserves. All the arguments we have yet heard are in favour of the change being made.—*West Briton*.

MEXICAN SILVER MINES.

The district in which the San Antonio Mine is situated ceasing about 1812 to pour forth its immense riches, has gradually fallen into decay; the mining population removed to other places, leaving only finally a few hundred in the village, disposed to eke out a precarious life by picking and washing over old rubbish piles, or entering the old abandoned mines to pick the remaining metal from the pillars in them. It was only at long intervals that a few enterprising persons then undertook new works, some of which resulted in large profits to them. Under such circumstances, it happened that in the year 1859 an American gentleman, by the name of H. A. Stearns, a man of large experience in mining matters and far-seeing business habits, was induced to visit this deserted district. To him and his untiring energy in its behalf Batopilas may thank the revival of its ancient glory, now at this date secured beyond a doubt. He at once understood the magnitude of the prospects which the district offered, and the necessities it required—capital and labour—and with more than usual energy set to work to make it known. He succeeded in drawing the attention of certain parties in New York to a splendid claim, called the San Miguel. They purchased the same from its Mexican owner, and sent an agent out to open it, Mr. J. Robinson, a gentleman also of rare business tact and considerable practical experience, highly respected by everybody, who, after several years' constant working, has succeeded in bringing the claim into such a state that very few anywhere may be equal to it. The San Miguel property, owned by himself, Mr. D. N. Barney, Louis McLane, W. C. Fargo, R. P. Cheney, and others of New York, comprises a number of the most celebrated mines in the district, many of which have given immense bonanzas. Foremost among them rank the San Antonio, discovered and worked about the beginning of the present century, by a common workman, Christoval Perez, who sunk down from the surface to the depth of 120 yards in one vast mass of the very richest silver, without once breaking off for 14 years, and took therefrom more than \$16,000,000. A short distance from the great mine of El Carmen is seen, which was worked about the same time by the Marquis de Bustamante, who is said to have extracted many millions from it. Among this metal was one lump of solid silver, over 400 lbs. in weight. Besides these, the Canelo and the Fierros veins have produced astonishing amounts, none of them being worked deeper than 150 yds. This claim is worked by a tunnel, running into the mountain about 40 feet above the river, and destined to cut all the veins and former mines considerably below their bottoms. The tunnel was commenced by the former Mexican owner, Mendazana, and is diligently continued by Mr. Robinson. It has attained, at this date, a length of 1400 ft., and cut, besides several principal lodes, a great number of lesser, hitherto unknown ones, every one of which was struck in the very richest metal, up to perfectly solid and beautifully white silver. Mr. Robinson is driving an air-shaft, which, when completed, will allow the better development of the various lodes below. Many millions will then assuredly come out of them within a few years. Only two weeks ago a vein was cut 3 yards wide in metal that will give \$8000 to the ton. The company also own a large hacienda, with splendid water-power, and a fine house and lot in town.

Next in importance to this claim ranks the great Pastrana Mine, situated on the famed Animas Hill. This lode on which it has been worked to the reputed depth of 150 yards, is looked upon as the most important of all, showing in parts a mass of 7 yards between its walls, and said to have given in various success five bonanzas more than \$40,000,000. The richness of its metal is known to have been such that frequently it gave \$40,000 in one single week; and a pillar thrown down in later years produced also over \$10,000. Common report says that the principal works in it were abandoned about 150 years ago, in consequence of a tremendous rush of water filling them after a severe rain storm, and that a portion of them, as also the bottom, were left in good ore. Several attempts have at various times been made to drain the mine, the last and most energetic one by Don Nepomuceno Sanchez, overseer for the Marquis de Bustamante, which was interrupted by the revolution breaking out in 1821, obliging all native Spaniards to fly the country. It remained deserted until 1834, when an English gentleman, Mr. George Le Brun, induced by certain manuscript documents in his possession, and having full faith in the mine, undertook anew the working on it. He started a tunnel from the east side, which he has ever since continued with the most untiring energy, and never for a day wavering in his confidence of success. In sundry occasional workings in the upper works, considerable amounts of silver have rewarded his enterprise. He struck a small thread which, beginning thickly, and then a knife-blade, within a few yds. gave over \$46,000 in massive silver. Under the most discouraging circumstances this tunnel was driven through exceedingly hard rock, a distance of about 300 yards from the vein, until success at last rewarded his work. A short time ago he tapped the old workings, the water running therefrom for several days in a tremendous stream. When an entrance through the opening was finally effected, what seems to be a pillar was discovered, of extent as yet unknown, the metal of which gives about \$64 to the carga of 300 lbs., or \$150 to the ton, while the rubbish filling the work averaged \$32 to the carga, or \$224 to the ton. This fact goes to show that the old reports were at least not entirely unfounded, and verifies the probability of immense riches lying beneath, at the same time being evidence that new developments in these so-called or formerly abandoned mines will almost invariably uncover fresh deposits of ore. The fact of this tunnel having succeeded, will not only serve Mr. Le Brun himself as a well-merited reward, but aid the district immeasurably in its fame.

The third claim in importance is the one called the St. Theresa, on the Animas Hill. It comprises an unknown number of lodes—a perfect network of them—perhaps over 100. Those that have been worked, have, wherever touched, all given very rich silver, although the workings on them hardly merit the name of mines, as but very few go over 40 yards in depth. The present owner of the claim, a Mexican by the name of Don Jesus Valenzuela, confines his enterprise mainly to one, the Santa Theresa proper, which stands in very rich silver, large masses of pure metal coming out of it. The same gentleman owns and works, besides this claim, four other ones on different hills, called respectively the San Nestor, Animas, St. Domingo, and Aurora, all of which give him very satisfactory results.—*San Francisco Mining Press*.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON BROTHERS return their most sincere thanks for the great patronage bestowed and confidence reposed in their firm for 25 years, and to assure their friends and clients it will be their earnest endeavour to merit a continuance of both. Messrs. WATSON BROTHERS have made arrangements for continuing their weekly Circular, which has had a large circulation for many years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and state of the share market, will in future appear in this column. In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1842, by Mr. J. Y. WATSON, F.G.S., author of "Clearings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1832), "Cornish Notes" (second series, 1833), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON BROTHERS have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened and successful experience of Messrs. WATSON BROTHERS, they are enabled to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON BROTHERS transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON BROTHERS also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON BROTHERS are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON BROTHERS having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge or commission.

SATURDAY.—Market moderately active to-day. Buller, Grenville, Great Vor, Seton, and East Caradon weak. Buller, 16 to 18; Grenville, 54 to 56; Great Vor, 17½ to 18; Seton, 67½ to 70; East Caradon, 63½ to 71½; Prince of Wales, 23s. to 25s.; West Frances, 56 to 58; Great Retallack, 2½ to 2½; Chiverton, 2½ to 3½; Frontino, 18 to 20; Chontales, 13½ to 1½; Don Pedro, 4½ to 4½. **MONDAY.**—Market very quiet, and prices mostly nominal. Drake Walls, 21s. to 23s.; Chontales, 13½ to 1½; East Caradon, 63½ to 71½; East Grenville, 54 to 56; Frontino and Bolivia, 18s. 6d. to 20s.; Great Laxey, 19 to 20; Great Retallack, 2½ to 2½; Great Vor, 17½ to 18; New Lovell, 2½ to 2½; Prince of Wales, 23s. to 25s.; West Basset, 57½ to 59; West Chiverton, 51 to 52; West Frances, 55 to 57; Wheal Agar, 28s. to 30s.; Wheal Bull, 16 to 18; Wheal Crebor, 10s. to 12s.; Wheal Grenville, 54s. to 56s.; Wheal Uny, 3½ to 4.

TUESDAY.—The market continues quiet. Grenville, East Grenville, West Frances, Buller, and West Seton flatter. Grenville, 52s. 6d. to 55s.; East Grenville, 54s. to 56s.; Buller, 15 to 17; West Frances, 54 to 56; West Seton, 19s. to 20s.; Great Vor, 17 to 17½; Crebor, 10s. to 12s. 6d.; Drake Walls, 21s. to 23s.; Prince of Wales, 22s. 6d. to 24s.; West Basset, 57s. to 59s.; Chontales, 13s. 6d. to 15s. 6d.; Don Pedro, 4½ to 4¾.

WEDNESDAY.—The market continues very quiet, and prices in most cases merely nominal. Prince of Wales, 23s. to 25s.; West Chiverton, 50 to 52; West Frances, 55 to 58; Great Vor, 17½ to 18; Uny, 3½ to 4; Drake Walls, 21s. to 23s.; Frontino, 18s. to 20s.; Seton, 65 to 70; West Basset, 55s. to 57s. 6d.; Grenville, 52s. 6d. to 55s.; East Grenville, 54s. to 56s.

THURSDAY.—Settling-day, and market very quiet. Chiverton Moor, 3½ to 4½; Chontales, 13s. 6d. to 15s. 6d.; Drake Walls, 21s. to 23s.; East Grenville, 54s. to 56s.; Frontino, 18s. to 20s.; New Lovell, 2½ to 2½; Prince of Wales, 23s. to 25s.; West Basset, 57½ to 59; West Chiverton, 51 to 52; West Frances, 55 to 57; Wheal Agar, 28s. to 30s.

FRIDAY.—The market is again quiet to-day, and prices are merely nominal. Prince of Wales, 24s. to 26s.; West Frances, 55 to 57; West Chiverton, 50 to 52; West Seton, 18½ to 19½; Seton, 62½ to 67½; Grenville, 52s. to 54s.; East Grenville, 54s. to 56s.; Chontales, 13s. 6d. to 15s. 6d.; Don Pedro, 4½ to 4¾; Frontino, 19s. 6d. to 20s. 6d.; Great Vor, 17 to 18.

The Great Rock Lead Mining Company

(LIMITED).

CAPITAL £15,000, IN 3000 SHARES OF £5 EACH.

Deposit of £1 per share on application, and £3 per share on allotment.

DIRECTORS.

WILLIAM PARRY, Esq., Holywell.

GEORGE HUGHES, Esq., Old Hall, Holywell.

RICHARD HARRISON, Esq., Castle Hill, Holywell.

BANKERS—THE ALLIANCE BANK (LIMITED), LONDON.

SOLICITOR—TUFNELL SOUTHGATE, Esq., 7, King's Bench Walk, Temple, London, E.C.

SECRETARY—Mr. W. J. LAVINGTON.

OFFICES,—63, BISHOPSGATE STREET WITHIN, LONDON.

PROSPECTUS.

This company is formed for the purpose of purchasing the lease and plant of the Clegir Mawr Lead Mine, situated in the parish of Gwyddelwern, on the borders of the counties of Merioneth and Denbigh, and for vigorously working the Mine on an extended scale. The Welsh term "Clegir Mawr" means in English "The Great Rock," and, therefore, the Mine will be conducted under the name of "The Great Rock Lead Mining Company (Limited)."

The lease is for the long term of 40 years, from 29th September, 1863. Operations have been and are still carried on by a few individuals, and during the six and a half years expired they have expended a very large amount in the development of the property, which has resulted in the intersection of three or four valuable lodes, and the important discoveries of lead ores described in the reports accompanying the prospectus of well-known practical mine managers.

The reports of these inspectors, and their testimony contained therein, as to the highly promising character of the property, and the great local advantages by which it is surrounded, will be read with great interest, and show clearly the strong confidence they have as to the intrinsic value of the property.

The River Clwyd immediately adjoins the sett, and will be available for all necessary mining purposes throughout the year; this of itself is almost invaluable, as compared with the great outlay and expense attending the working of mines by steam power. There is a railway station only about a mile and a half from the property, which renders the carriage of materials and lead ores comparatively moderate.

From the large amount of work already done a great saving of time and expense accrues to the present company, independently of the rich lodes of lead discovered, the importance of which cannot be over-estimated; and, as explained by the mine managers who have inspected the property, the application of additional water machinery, and the adoption of a more vigorous and practical system of working than has hitherto been carried on, will, no doubt, prove in a comparatively short period highly profitable to the shareholders. It may be remarked, that these inspectors were sent at separate times, in order that the independent and unbiased opinion of each might be obtained.

Returns of lead ores can be made from the ground now laid open, but it is considered desirable, with the view of making it a permanently productive property, to extend the levels and sink on the rich lodes already discovered.

The amount to be paid for the purchase of the lease, plant, &c., is £9000. Of this sum 1000 shares in the company, with £4 paid up, will be taken in part payment, as the vendors are desirous of taking a large interest in what they believe will prove to be one of the most valuable mines ever offered to the public, and only requiring a further comparatively small outlay to develop fully and economically the highly-promising lodes already mentioned.

The lead mines of Wales have proved, as is well known, sources of great wealth, and only within the past six or eight months the Van Mine was purchased by a few parties for £49,000, and immediately afterwards a company was constituted to work the Mine in 12,000 shares, at £4 5s. per share (£51,000). Since then the shares have gradually risen, and are now about £25 to £27 each, representing a marketable value of no less than £300,000 to £324,000.

It is not, however, intended to compare the Great Rock Mine with this celebrated Van Mine; although its formation is said to be in many respects somewhat similar, if not even identical, with this and other profitable lead mines in Wales.

It is estimated that a further outlay of only about £2000 will be sufficient to render the Great Rock Mine a profitable undertaking, and it is believed there will be no necessity for any further call on the shareholders beyond the £4 per share.

The highly satisfactory reports by Capt. JOHN KITTO, late agent of the Great Laxey Mines, and now of the Brynpostig and other Welsh Mines; Capt. A. RALPH, Mineral Agent in Wales of Sir William Williams, Bart.; Capt. EDWARD ROGERS, who for several years was agent of the celebrated and profitable Tamar Silver-lead Mines, &c., and now of the Great Western Mines; Capt. R. ROWE, the eminent manager of the Great Laxey Mines; Capt. F. EVANS, Mine Agent (on whose report or recommendation it is stated that the Van Mine was purchased), afford the most conclusive evidence that this property does not partake of that speculative character so often attending mining enterprise. In addition to this, the report of Capt. JOHN KEMP, the Manager of the Mine, shows that after the comparatively small necessary outlay is made, in accordance with his estimate, considerable profits will be realised.

The following are the dates and names to all contracts entered into by the company, in conformity with the Companies Act, 1867:—

Date of contract—8th April, 1869.

Names of parties to the contract—JOHN DENKER of the one part, and WILLIAM JOHN LAVINGTON of the other part.

Prospectuses and reports, with forms of applications for shares may be obtained at the offices of the company; and applications for shares in the form annexed, accompanied with the deposit, may be made either to the bankers of the company—the Alliance Bank (Limited)—or direct to the company's office, 63, Bishopsgate-street Within, London.

FORM OF APPLICATION FOR SHARES.—(To be retained by the Bankers.)

To the Directors of the Great Rock Lead Mining Company (Limited).

GENTLEMEN,—Having paid to your bankers, the Alliance Bank (Limited), the sum of £ , being a deposit of £1 per share on shares in the above company, I hereby request that you will allot me that number, and I agree to accept such shares (or any less number allotted to me), and to pay the sum of £3 per share on allotment; and I hereby authorise you to place my name on the Register of Members in respect of the shares allotted to me.

Usual signature Profession or business
Name in full Date
Residence

Mining Correspondence.

BRITISH MINES.

BWADRAIN CONSOLS.—R. Northey, April 14: The lode in the 35 is of about the same width and value as last reported. There is no change in the value of the other points of the mine, including the stopes, which are producing the usual quantities of stuff. Dressing operations are going on well towards the next sampling.

BWLCH CONSOLS.—R. Northey, April 14: The lode in the 60 is 2 ft. wide, yielding spots of lead ore, and we are expecting a change for the better shortly. The lode in the 60 is 3 ft. wide, and worth 1 ton per fathom. The 30 has been driven through the cross-course reported on March 30; the lode is now about 1½ ft. wide, carrying a mixture of pryan, friable quartz, blende, and stones of lead ores. The stopes generally are without material alteration. The dressing is going on regular towards another sampling.

CAPE CORNWALL.—R. Pryor, J. Davey, April 13: The ground in the 100 cross-cut, north of engine-shaft, is still spare for driving, being mixed with spar, which contains mounds and spots of copper ore, indicating the nature of the lode. In the 70 cross-cut, driving north of shaft, there is scarcely any change to notice since our last report.

CARADON CONSOLS.—S. Bennetts: During the past week the north cross-cut has passed several branches of quartz and fluor-spar, intermixed with a little copper; these branches have caused the ground to be comparatively stiff, so that progress has been somewhat slow. The gossan lode in the 78 west end is 1½ ft. wide, composed principally of fluor-spar, gossan matter, and spotted with ore; the capels for 3 ft. to the north are also thickly spotted with ore and muddle. The same lode, east of the cross-course, is smaller just now than we have hitherto seen it. The sinking of the shaft progresses favourably.

CENTRAL SNAILBEACH.—J. Kitto, April 15: We have cut into the lode in the 200 yard level cross-cut upwards of 12 ft., but have not yet got through to the hanging side; there is a decided improvement in the character of the lode at this point upon anything seen in the lode above, and I am strong of opinion that we shall soon have a good discovery.

CHANTICLEER.—Wm. Wasley, April 15: Good progress is being made with sinking the shaft below the 10 yard level. The joint in the present bottom of the shaft is small and poor, but I think from its kindly appearance that it will not be long before it opens out wider, and produces ore.

COLQUHTE AND CALLINGTON.—T. Dolge: The lode in Colquhite shaft is 7 ft. wide, mainly muddle; out of this on the footwall there is a branch 9 in. big, with lead and black and yellow copper—this is of a splendid character; also there is lead throughout the lode; the ground is a great deal stiffer for sinking, and we have cut more water, in appearance the lode cannot look better in character before we get the lead. We sampled yesterday 30 tons of muddle, leaving 11 or 12 tons that we did not weigh, and still dressing. In the branch referred to there is something more than black and yellow copper; it is the general opinion that it is grey silver. I sent some stone to Mr. Jenkins, assayer, and he thought it was grey silver, but could not say for certain without trying a sample, therefore I brought down a sample and sent him. I hope to know to-night or to-morrow morning; my opinion is that it is grey copper, though I must confess it is most like silver. My reason for thinking it is grey copper is because of the black and yellow copper in the same branch.

CUDDEA.—A. Cuddy, April 14: We are cutting out the lode in the 142, west of Walker's shaft, with all possible speed, but the lode is so very spare for progress that we cannot show much in a week. The lode as far as seen is pretty good for tin, and I hope when cut out to be able to raise tin to your satisfaction. There is no alteration in any part of the mine to notice.

DEEP LEVEL.—April 14: The lode in the deep level, west of junction, on Pant-y-go vein, is 18 in. wide, composed of spar, blende, and containing spots of lead ore, with a good stream of water flowing from the bottom part of the end. In the deep level, going south-west on deep level vein, the lode is about 2 ft. wide, showing spots of lead ore. The winze below the 204 yard level, east of Eytan's shaft, is communicated to the deep adit level, which gives good ventilation; we are putting in a ladder-rod in this winze, and as soon as it is completed we shall put six men to drive the 204, east of the winze, where there are good prospects. The lode in the 204, west of Eytan's shaft, on Pant-y-go vein, is 18 in. wide, with a promising appearance, worth 1 ton of lead ore per fathom. There is no change in the 174, west of Pant-y-go shaft. The cross-cut driving south at the 202 yard level, east of Pant-y-go shaft, is now extended 4 yards south of the old level in hard limestone; we calculate we have about 3 ft. more to drive to reach the Pant-y-go vein. The lode in the 202, west of cross-cut, west of Pant-y-go shaft, is 4 ft. wide—a fine great lode, composed of spar, blende, and worth 12 cwt. of lead ore per fm. Our tribute pitches continue to yield their usual quantity of ore.

EAST BOTTLE HILLS.—Joseph Eddy, April 15: In the 10, on south lode, the lode is about 4 ft. wide, worth for tin 8½ per fathom, and of a very congenial nature. In the deep adit level, about 15 fms. below the 10, the lode is about 4 ft. wide, worth 6½ per fathom for tin. We intend communicating these levels by

rising in the back of the 25 and sinking in the bottom of the 10, which will give good ventilation, and will open up a large piece of tribute ground. In the adit level, on north copper lode, the lode is about 2 ft. wide, producing good stones of copper ore, of high produce. We shall push on all our operations with vigour.

EAST DARRIN.—April 13: Taylor's Shaft: In the 116 east the lode is about 2 yards wide, improved for lead since last reported on; now yielding 1½ ton of ore per fm., and looks very promising for laying open a length of ore ground. In the 104 east the lode is about 1½ yard wide, not looking quite so well for lead, the lode being a little disordered by cross-joints, now yielding 1½ ton of ore per fathom. In the 92 east the lode is from 2 to 3 yards wide, producing 2 tons of ore per fathom. In the 92, west of boundary, no lode has been taken down since last reported on. In the winze sinking below the 68 east, near the present end, the lode is 1½ yard wide, yielding saving work for dressing of a low quality. The tribute pitches throughout the mine continue to look well, and yield their average quantities of ore. In Skinner's shaft, sinking below the 44, the ground is composed of a blue clay-slate, and is being carried down with all speed. At the new shaft at Blaenwern the ground is composed of a light clay-slate, and the men making fair progress in sinking. In the two cross-cuts north of New Pool the ground is composed of hard beds of grit, which very much impedes our progress in driving, and no indication of the lode has been seen as yet. Our machinery is in good order, with a good supply of water, and all surface work going on regular.

EAST GUNNLSLAKE AND SOUTH BEDFORD CONSOLS.—James Bray, April 14: We have cleared up the Impham shaft to a depth of 4 fms. I find the eastern end thereof is all taken away; in the western end of same the lode is 6 ft. wide, composed of spar and peach, producing good stones of ore. The Wheal Russell adventurers have commenced to sink a winze in the bottom of the adit, in order to take away their 5 fms. of ground, which is 30 fms. east of Impham shaft; the lode is 4 ft. wide, producing 3 tons of ore per fathom.—P.S. The lode in the Impham adit is 10½ ft. wide, producing 6 tons of ore per fathom.

EAST NEW WHEEL LOVELL.—Chas. Bawden, April 15: The engine-shaft is in course of sinking in good ground, and within the last few days has intersected one of the lodes, which is as promising as I ever saw one, and, although only 5 fms. deep, it produces tin. We are not yet through it, consequently cannot report its size. We have erected horse-whim, and taken out foundation for engine-house, and no time should be lost in the erection of steam-engine.

EAST PLYNIMMON.—John Pauli, April 14: The adit level taken up near the River Wye, and going westward, is driven 18 fathoms chiefly in clay and gravel (requiring to be timbered), but the rock within the last few days has reached the height of the forebreast, and the lode has a very promising appearance, principally composed of muddle and quartz. A good tramway is laid in the level, which in a short distance more driving will gain considerable backs. At the mouth of the level a shaft is commenced, but only sunk 9 feet, the water being too quick without machinery. The lode here is 3 ft. wide, and intermixed with lead ore. In the western part of the set an open cutting has been taken up, 23 fathoms in length, and a deep adit cross-cut thence driven north 17 fms. We anticipate that about 60 fathoms further will intersect the Plynimmon lode at a depth of at least 45 fathoms from surface. To expedite the discharge of stuff, a tramway is also laid in this level. To cut the lodes as low as possible, this level is laid out deeper, and will, consequently, be something longer than was at first intended. We consider it advisable that search should now be made for the lodes at surface, near the centre of the sett, and a level then driven on its course; with your permission we will at once proceed with this.

EAST ROSEWARNE.—C. Glasdon, April 15: In King's shaft, sinking below the 115, the lode is 12 inches wide, worth 4½ per fathom. In the 115, west of shaft, the lode is 15 inches wide, worth 6½ per fathom. In the 115, east of shaft, the lode is still 15 inches wide, worth 4½ per fathom. In the 105, west of shaft, the lode is 12 inches wide, producing stones of copper ore, but not enough to value. In the rise in back of the 105, east of shaft, the lode is 12 inches wide, worth 4½ per fathom; these men are put to stop the end of the rise; lode worth 8½ per fathom. There is no change in the 95, east of shaft, since my last report; these men have been putting in timber in the bottom of the 95, west of shaft, and making the level secure.

EAST SESTON.—J. Vivian and Son, Wm. Thomas, Jun., April 15: In the 20, driving east of Bassett's engine-shaft, we have a large flooken lode; driving by three men and three boys, at 50s. per fathom. We expect the shaftmen will complete cutting down the flat-rod shaft in the course of the present week, when we shall immediately cut plat at the 10 fm. level, and sink below. We shall also drive the 10 east, where there is a promising lode, yielding copper ore. There is no other change to notice.

EAST SNAEFELL.—W. H. Rowe, April 13: The sinking of the shaft has been delayed a little since last by having to fix sump-top, &c., but all is now in good train for working, and I expect to see something more of the lode in a day or two. We have cut more water in the 25 and south, and the indications are better than anything yet seen at this depth. The branch referred to last week appears now to be the regular hanging, and the ground between it and the footwall is rapidly forming into very kindly vein-stuff, which, towards the sole of the driving especially, is chiefly a mixture of soft spar, lead, and Jack. I have set the end to drive for another month, at 8½ per fathom.

EAST WHEEL BASSET.—W. Nancarrow, April 14: In the 140 cross-cut south we are making good progress; the ground being better, and letting out water more freely. In the 130 cross-cut south, east of new shaft, we have just cut a branch about 6 in. wide, containing good stones of copper ore, but we are still driving south towards the lode. There is no change in the 130, east of the No. 1 cross-cut, on the south lode. In the 130, west of No. 2 cross-cut, on the south lode, the lode is 2½ feet wide, worth 4½ per fm. for tin—a very promising lode. The slope in the back of the 130 fm. level, west of No. 1 cross-cut, is worth for copper ore 8½ per fm. The lode in the 125 west is 1½ ft. wide, producing good stones of copper ore, and likely soon to improve.

EAST WHEEL GRENVILLE.—G. R. Odgers, W. Bennetts, April 9: The only change in the mine since Wednesday last is an improvement in the rise above the 95 fm. level, which is now worth 2 tons of ore per fathom. The 75 is also looking better. In the 65 we are coming into soft ground, with a leader of ore on the footwall of the lode; this we consider a most favourable indication. We are making good progress with the dressing, and we shall sample the quantity calculated upon.

G. R. Odgers, Wm. Bennetts, April 10: We see no important change from our letter of yesterday, more than the lode at the 15 east bespeaks an improvement; and, judging from the copper ore gone below the 75, we have every reason for expecting a discovery.

G. R. Odgers, W. Bennetts, April 14: The lode in the 120 east is 20 in. to 2 feet wide, of quartz, chlorite, and copper ore, and which is looking more promising than the lode did at either level before reaching the caunter. The lode in the rise above the 110 is worth 8½ per fathom. The lode in the rise above the 95 is worth 2 tons of ore per fathom, and laying open good paying ground. There is no change in the 85. The lode in the 75 east is 20 in. wide—a good branch of ore, worth 1½ to 2 tons per fathom. The lode is getting rougher, and letting out a lot of water, which leads us to believe that as we get under the lode we had in the 55 we shall then have a good bunch of ore. In the 66 fm. level the branches are converging rapidly; they contain copper ore, and the ground is getting much softer, and mixed with white elvan, therefore we are sanguine of a speedy improvement. The lode in the 55 is worth 2 tons of copper ore per fathom. The lode and the ground are getting easier, therefore we have every reason to believe that we shall meet with a favourable change here too. The pitch is looking very well, and yielding fully as much ore as we last reported. The 45 is now in the cross-course; to the east of this, in the 65, we have had the ore, and are pleased to tell you that the lode is changing rapidly again, it being gossan, with green carbonate of copper intermixed. We believe the lode will be found to produce good bunches of copper ore in the gossan. We are pushing on the side tie, in the 45, and the 25 fm. level cross-cut, with all speed.

EAST WHEEL LOVELL.—R. Quentrell, April 14: North Lode: In the new shaft, sinking below the 70, we have a lode 5 ft. wide, and yielding rich tinstuff. The 70 west, towards the junction, has not been driven far enough to reach the run of tin ground.—South Lode: The slope in back of the 60, west of winze, is worth 50½ per fm.

EAST WHEEL RUSSELL.—Wm. Richards, April 15: The ground is favourable for costaining in search of the Impham lode, and we find some kindly show stones, containing traces of silver and copper. The other points are in abeyance for the time, for reasons previously assigned.

GAWTON COPPER.—G. Rowe, G. Rowe, Jun., April 10: At the 82, driving north from King's engine-shaft, we are still engaged in going through the north capels of the lode, which is thickly impregnated with ore, and showing indications of being near the footwall. The lode in the 70, east of said shaft, is 6 feet wide, yielding occasional stones of ore. The lode in cross-cutting at the 70 west is principally composed of capel and spar, intermixed with muddle. The lode in the winze sinking below the 70 east is worth 6 tons of ore per fathom, and the lode in the stopes below the 70, east of winze, is worth 9 tons of ore per fathom. All other points of operation are without change.

GLASGOW CARADON.—W. Taylor, April 13: Caunter Lode: The 78 west is worth 18½ per fathom; a fine looking lode, and likely to improve. The stopes in the back of this level are also looking well, worth from 9½ to 14½ per fm. In the cross-cut south of this lode, on middle cross-course, we have an increase of water; I expect it is from Arrol's lode, which should be near.—Arrol's Lode: We have cut this lode by the western cross-course, producing stones of ore, and likely to be productive when we get off the cross-course, which we shall do as we communicate with the cross-cut, coming back from Harvey's lode, which we hope to do this week. The rise in back of this level east worth 5½ per fathom.—Harvey's Lode: The 65 east is worth 8½ per fm. The 65 west is still driving north from it to hole to cross-cut from caunter lode. Stopes on this lode are worth from 8½ to 10½ per fm. In the cross-cut south of this lode we have an increase of water, probably coming from a lode near. We are pushing on this by six men as fast as possible.

GREAT NORTH DOWNS.—W. Rich, W. Ennor, April 14: We are urging on the sinking of Sleggan's shaft below the 84. The water in the mine has abated considerably. There is very little alteration in the different points of operation since our report of last week.

GREAT RETALLACK.—J. Harris, April 10: There is no change in the No. 1 lode since our last report, no lode having been taken down in three or four places since.—No. 2 Lode: The lode in the engine-shaft, sinking below the 40, is 1 ft. wide, composed of beautiful friable spar, muddle, and spots of lead; a very kindly lode, and I am very much pleased to say that the kilas is getting easier around the lode, and looking more congenial for making lead. I am glad to say that the lode in the 40 north is again improved, and worth from 8 to 10 cwt. of lead per fathom. The improvement is in the leader on the western side, which has all the appearance of leading to a good bunch of lead; and another pleasing feature about it is that the kilas is getting easier too; and I hope that when you next come up you will not be disappointed in seeing a good bunch of lead. There is no other change.

G. R. Odgers, J. Harris, April 14: No. 1 Lode: The lode in the engine-shaft, sinking below the 30, is 18 in. wide, producing good lead, worth 4 cwt. to the fathom. The lode in the 30 north is split, but producing stones of lead. The stopes above this level will produce 4 cwt. of lead to the fathom. The lode in the 20 north is 18 in. wide, with stones of lead, quartz, &c., and letting out a quantity of water.—No. 2 Lode: The men are getting on very well with the sinking of the engine-shaft below the 40, which is in a very congenial kilas for making lead; the lode is 15 to 18 in. wide, of friable quartz and flooken, that contain a little lead; this has a promising appearance. In the 40 north the lode has again split into two branches, that contain a little lead; here we have passed through some lead ground, and we have placed the men to rise where the lode will produce from 5 to 6 cwt. of lead per fathom. We are busy dressing, and we hope on Saturday week to sample fully as much lead as the last.

GREAT ROYALTON.—T. Parkyn, April 15: We have fixed the engine in its place, and the carpenter is now fixing the horses, &c., to carry the rods from the engine to the shaft. We are also fixing the stamper shaft, bob, &c. The shears are made, and will be lifted up in a day or so. We have also commenced sinking the shaft, and have raised some rich work for tin, so you will see everything is being pushed on with all possible dispatch. I have four men sinking a shaft on the great lode, about 150 fathoms east of our engine-shaft; it is in rising ground, and I have good reason to believe we shall have a rich lode here, as we have found some very fine stones of tin at this point. I hope to make another good discovery here, and to be able to report something good next week. The men will be put to sink the engine-shaft, when the engine is set to work, which will be in a few days.

GREAT SOUTH CHIVERTON.—J. Nancarrow: The ground in the 20 east is not so favourable for driving as before; the lode is promising, and occasionally we break a little lead. The lode in the rise above the 40 is looking rather better. We are making fair progress in driving the 40 east. The winze below the 40 west is improving, and will yield 12 cwt. of lead per fathom. The lode is strong, and the lead is likely to continue. The 50 west is a little harder, but otherwise there is alteration since last report.

GREAT SOUTH TOLGUS.—J. Daw, April 14: Friday last was setting-day. The stopes we have set below a winze below the 154, and the lode is 4 ft. wide, worth 20½ per fathom; set to four men, at 12½ per fathom. In the back of the 154, and over No. 2 cross-cut, we have set a rise to six men, at 14½ per fathom, where the lode is 4 ft. wide, worth 25½ per fathom. In the 154, west of No. 3 cross-cut, the lode is 3 ft. wide, worth 14½ per fathom. We have now put the men about 5 fathoms further west to cut into it again; set to four men, at 8½ per fathom. In the stopes in the back of the 154, and west of No. 1 cross-cut, the lode is worth 25½ per fathom; set to four men, at 5½, 10s. per fathom. In the 140 west, on the tin lode, the lode, or part carrying, is 4 ft. wide, worth 8½ per fathom, with still more standing to the south; this we are now cutting through by four men, at 12½ per fathom.

GREAT WESTERN.—Edward Rogers, Edmund Rogers, April 14: Fisher's Lode: Thomas's engine-shaft is enlarged, cased, and divided from our surface to the deep adit; the shaftmen are now engaged cutting ground below this level. In the 20, east of the Pressure shaft, the lode is 2½ ft. wide, worth 5½ per fm. The rise in the back of this level is communicated to the winze sunk from the level above, and has gone through a profitable piece of ground, worth in each end of the rise 15½ per fathom. In the 10, driving west of Jones's shaft, the lode is 1 ft. wide, composed of spar, iron, and small patches of granite, with spots of tin. In the 30 end, east of Annie's engine-shaft, there is no alteration; the lode is worth 21, 10s. per fm.—Middle Lode: Curtis's flat-rod shaft is down 2½ fms. below the 20; the lode is 3 ft. wide, worth 8½ per fathom. In the 20 end, driving east of this shaft, the lode is 2 ft. wide, worth 4½ per fathom. In this level west there is no alteration; the lode is worth 15½ per fathom. In the 7, driving east, the lode is 6 in. wide, producing some good stones of tin.—Caunter Lode: In the 20, east of Curtis's, the lode is small and poor. In the 17, from surface, there is no alteration since last reported on; lode worth 2½ per fathom.—South Lode: In the adit level, driving west, the lode is 6 inches wide, producing a little tin.

GWYDYR PARK.—W. Smyth, April 13: There is no particular change in the shaft at Gwyn Liffon since last report. We began boring to-day; the sound seems to the south, also a little ahead of the end, although it does not appear we have much to sink. There is no alteration in the lode in the Vuchelas deep adit.

HINGTON DOWN CONSOLS.—James Richards, April 15: In the steep near Bailey's shaft, in the bottom of the 130, on the north part of the lode, the lode continues worth 3 tons of ore, or 12½ per fathom. In the slope in the back of the 130, east of Bailey's shaft, the lode is worth 2 tons of ore, or 8½ per fathom. In the 100, west of Bailey's shaft, the drive is continued by the side of the lode. In the 85, east of Morris's shaft, there is no improvement in the ground, progress is, therefore, slow. In the 55, east of Morris's shaft, and east of the eastern cross-cut, on the north lode, no lode has been taken down, the ground by the side of which is moderately favourable for progress. In the 55, east of Morris's shaft, at point of horse, the men having secured the ground, they are now engaged opening the sides, and as soon as finished—in the course of three or four days—stopping will be commenced for ascertaining the value of the lode, &c. In the adit level south we are again through the hard branches, and fair progress is now being made.

LOVELL CONSOLS.—J. Nancarrow, April 13: The rise above the 12 fm. level is up 4½ fathoms; the lode is unaltered. The winze below the adit is down 4½ fathoms; the lode has improved, and is worth 12½ per fathom. It is now placed beyond all doubt that the lode in the 12 fm. level is not the lode on which the winze is being sunk, and that the tin in the winze and in the bottoms to the east of it is all going down in whole ground to the north of the 12 fm. level. This is a most important matter, as it can soon be worked to profit, and is likely to lead to the opening up of a good mine.

MINRA UNION.—Wm. T. Harp, April 15: Low's Shaft: The lode discovered in the cross-cut at the 60 yard level is 2 ft. wide, yielding a little lead, but not sufficient to value. We continue to push the cross-cut forward, as there are other lodes to be discovered which, I think, will be found more productive. This level going north yields occasional stones of lead and ground very promising.—Brabner's Shaft: The ground in the 80 yard level cross-cut consists of

[ADVERTISEMENT.]

THE GREAT ROCK LEAD MINING COMPANY (to the formation of which attention was directed in last week's Journal) has been incorporated for extending the development of the Clegir Mawr (Great Rock) Mine, which is situated on the borders of the counties of Merioneth and Denbigh. From 1863 the development of the property has been conducted by local capitalists, the result being the intersection of several well-defined and productive lodes, which have already been wrought to a sufficient extent to warrant one of the leading practical authorities upon lead mining to state it is "a very good property, such as would do credit to any proprietary, and from which, if conducted with spirit and economy, a large return may reasonably be anticipated for any outlay that may be required in the erection of suitable machinery, and in opening out the mines." Adverting to the present position of the property, the same authority states that there is ore enough already discovered to pay the ordinary working expenses of the mine while the machinery is being erected, and the mine brought into a profitable state of working. The company ac-

quire the lease (for the term of 40 years from 1863), plant, &c., for 9000L, of which the vendors, desirous of retaining a large interest in the enterprise, have stipulated that 4000L should be in the shape of 1000 shares, credited with 4L paid. It is computed that about 2000L will be sufficient to bring the mine into a profitable condition. Among the various authorities who have inspected and reported upon Great Rock are Capt. John Kitto (late agent of the Great Laxey, and now of Brynpostig, Mid-Wales, and other Welsh mines), who states that "it is but seldom in the whole course of his experience that he has seen a young mine possessing equal prospects and advantages;" Capt. Rogers, who states that he has been for many years engaged in lead mining in Devon, Cornwall, Wales, and Ireland, and for nine years an agent at the once celebrated Tamar Silver-Lead Mines, and inspected lead mines in different parts of the world, but he never saw such facilities throughout as there are at Great Rock, together with the favourable character of the lodes for the production of lead ores. Equally satisfactory testimony as to the intrinsic value of the property is borne by Capt. Ralph (mineral agent in Wales of Sir Wm. Williams, Bart.), Capt. Rowe (of Great Baxey), Capt. F. Evans, and others. The undertaking is divided into 3000 (5L) shares, of which 1L is to be paid on application, and 3L on allotment. The local directors are Messrs. W. Parry, G. Hughes (Old Hall), and R. Harrison (Castle Hill), Holywell.

The SOUTH POLBERROW TIN MINING COMPANY has been formed, with the object of purchasing for 3000L the lease of and working the mine of the same name, situated in the parish of St. Agnes, one of the best tin districts in Cornwall. The capital is fixed at 8000L, divided into shares of 2L each. The lodes traversing the sett have proved very rich in the mines immediately to the east and west of the boundary, while the workings in the grant have already opened upon good courses of tin, similar to those found in the mines to the east and west at the same depth, thus placing its value beyond doubt. The mine can be worked to a considerable extent without the aid of expensive machinery, there being sufficient water-power for all practical purposes, and the rich lodes can be opened upon by the driving of adits about 60 fms. deep, an advantage seldom met with in Cornwall. It is within two miles of the shipping port of St. Agnes, rendering the shipment of ore easy, and the carriage of materials cheap. The lease is for 21 years, from December, 1866, and is granted by the Duchy of Cornwall at 20L per annum minimum rental, merging into a royalty of 1-15th, reducible to 1-20th after erection of engine. The property has been favourably reported upon by Capt. W. Paul, John Davies, R. Davies, John Nancarrow, James Evans, and James Crase, who concur in expressing a high opinion of its value.

The Standards of Tin Ores and Prices of Metal were reduced on Monday, and are now as follows:—Ores: Common, 117s.; superior common, 118s.; fine, 119s.; superb fine, 120s.—Metal: Common, 130s.; refined, 136s.

At the Dolcoath Mine meeting, on Monday, the accounts for January and February showed a credit balance of 4187L 10s. 9d. The profit on the two months' working of 3816L 17s. 6d. A dividend of 3580L (10L per share) was declared, and 607L 10s. 9d. was carried to credit of next account. Capt. Josiah Thomas, W. Provis, J. Tonkin, and J. Bawden, reported upon the various points of operation.

At West Wheel Seton bi-monthly meeting, on Tuesday, the accounts showed a credit balance of 3458L 3s. 10d. A dividend of 2400L (6L per share) was declared. Capt. Bath, Jennings, and Tregouin, in their report, say—"We have made every necessary arrangement preparatory to sinking the new shaft, in accordance with the instructions given us at the last account, and we hope to commence operations in the course of a week. This shaft will take the lode at the 110; it will be north of Hilderley's shaft about 100 fms., and west about 35 fms., and will be found in a good position for commanding both the western and eastern ground."

At Marke Valley Mine meeting, on Thursday (Mr. B. Warburton in the chair), the accounts to date showed a credit balance of 2679L 13s. 11d. The profit on the three months' working was 2235L 11s. 10d. A dividend of 2250L (5s. per share) was declared. Captain John Truscott reported upon the various points of operation.

At Carn Camborne Mine meeting, on Thursday (Mr. M. Phillips in the chair), the accounts for the three months to date showed a debit balance of 298L 4s. 11d. A dividend of 1s. 6d. per share was made. Capt. John Truscott reported upon the various points of operation. When the lode is intersected in the 85 they will have to drive about 12 fathoms west to get under the productive lode seen in the 70, and he considers the chances of success when this point is fairly developed are of an encouraging character.

At West Rose Down Mine meeting, on Thursday (Mr. W. Fawcett in the chair), the accounts to date showed a debit balance of 57L 15s. 9d. A call of 10s. per share was made. Capt. John Truscott reported that the prospects of the mine continue to improve, as the extreme ends are driven west in the adjoining mine. It was stated at the meeting that the improvement in the 80, at Marke Valley, was within 13 fms. of the boundary of this sett.

At the Great Laxey Mining Company meeting, on Thursday (Mr. G. W. Dumbell in the chair), it was stated that the quarterly dividends at the rate of 30,000L per annum continued to be provided by the mine, being at the rate of 50 per cent. upon the paid-up capital, and that there was every reason to expect a continued prosperity of the undertaking. Details in another column.

At Penhale Wheel Vor meeting yesterday (Mr. Holroyd in the chair), the accounts showed a balance of liabilities over assets of 734L 18s. 5d., including the March cost. A call of 10s. per share was made. Details in another column.

At East Caradon Mine meeting, on April 15, the accounts showed a profit on the quarter of 360L, which was carried to credit of next account, the balance in favour of the mine being now 2390L.

The Bank of England return for the week ending on Wednesday evening showed in the ISSUE DEPARTMENT a decrease in the "notes issued" of 348,805L, which is represented by a corresponding decrease in the "coin and bullion" on the other side of the account. In the BANKING DEPARTMENT there is shown a decrease in the "public deposits" of 448,588L, and in the "other deposits" of 691,088L, together, 1,140,676L; an increase in the "seven day and other bills" of 3276L, and in the "rest" of 5908L, together, 9179L, 1,131,097L. On the other side of the account there is an increase in the "Government securities" of 50,000L, and a decrease in the "other securities" of 1,110,750L, 1,060,750L, leaving a total decrease in the reserve of 70,338L.

COAL MARKET.—The fresh arrivals this week only number 63 ships. The demand has been quite up to the supply, for the market is entirely cleared, prices quoting the same as this day week. Hetton Wallend, 18s. 6d.; South Hetton Wallend, 18s.; Tees Wallend, 17s. 6d.; Hetton Lyons Wallend, 14s.; Tunstall Wallend, 14s.; South Hartlepool Wallend, 15s. 6d.—Unsold, *nil*: 55 ships at sea.

MINE INSPECTION.—Mr. Bruce has obtained leave to bring in a Bill to consolidate and amend the Acts relating to the regulation and inspection of mines.

BLUE HILLS TIN MINING COMPANY
ST. AGNES, CORNWALL.
The LONDON OFFICES of this Company are at No. 22, AUSTINFRIARS, LONDON. All communications to be addressed to
MR. JAMES HICKEY, Secretary.

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The Agent in London, WILLIAM COLLARD SMITH, Esq., is PREPARED TO RECEIVE APPLICATIONS FOR 6480 SHARES (the other 6480 Shares being allotted in the Colony) in

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LEAD MINES AS AN INVESTMENT.
MR. J. H. MURCHISON will shortly publish a PAMPHLET on the "LEAD MINES OF CARDIFFSHIRE AND MONTGOMERYSHIRE," districts comprising VAN DYKES, LIDWANE, EAST DARREN, SOUTH DARREN, and other important Mines. Price 6d.
In the meantime, orders for early copies may be sent to Mr. MURCHISON, at his office, 8, Astin's Infrars, London; and information will also be given relative to Mines in the above districts to anyone wishing and applying for the same.

SIX PER CENT. OBLIGATIONS for £100 each, issued at £80, Redeemable at par by annual drawings during a period of 10 years. The DIRECTORS of the FLORENCE LAND AND PUBLIC WORKS COMPANY (LIMITED) are now PREPARED TO RECEIVE APPLICATIONS for a FURTHER ISSUE of OBLIGATIONS to the extent of £50,000, on account of a total issue not exceeding £250,000. The obligations are amply secured by the lands and property of Florence, &c.
Further particulars and forms of applications may be obtained at the company's offices, 110, Cannon-street, E.C.
April 10, 1869. By order, J. F. CORKRAN, Secretary.

ANGLO-BRAZILIAN GOLD COMPANY (LIMITED).
Notice is hereby given, that the SIXTH ORDINARY GENERAL MEETING of the company will be HELD at the London Tavern, Bishopsgate-street, in the City of London, on THURSDAY, April 22, 1869, at half-past Two o'clock precisely, for the transaction of the business of the company, including the election of auditors. By order of the Board,
JOHN E. DAWSON, Secretary.

UNITED MEXICAN MINING COMPANY (LIMITED).
Notice is hereby given, that the ORDINARY HALF-YEARLY GENERAL MEETING of proprietors will be HELD at the office of this company, on WEDNESDAY, the 5th day of May next, at One o'clock precisely.
At this meeting John Weston and John William Williamson, Esqrs., will retire from office as directors, but, being eligible, offer themselves for re-election. An election of a new director, in the room of John Phillips, Esq., deceased, will also take place. Robert Palgrave, Esq., is a candidate for the vacancy. The election of two auditors for the ensuing year will likewise take place; William Turquand, Esq., offers himself for re-election, and John Dunnington Fletcher, Esq., is a candidate for the office in the room of Robert Palgrave, Esq., resigned.
The Transfer-books will be closed on the afternoon of the 24th inst., and reopened on the day succeeding the meeting.
By order of the Board,
W. M. BROWNE, Secretary.
Office, No. 3, Great Winchester-street-buildings, E.C., London, April 9, 1869.

THE WICKLOW COPPER MINE COMPANY.
Incorporated by Act of Parliament.

At the HALF-YEARLY MEETING of the proprietors of the above company, held at their offices, 113, Grafton-street, Dublin, on Saturday, April 10, 1869, THOMAS HONE, Esq., J.P., in the chair,

The notice convening the meeting having been read by the Secretary, the common seal of the company was affixed to the Register of Shareholders. The following resolutions were then proposed and adopted:—
Moved by the CHAIRMAN; seconded by JOHN BARTON, Esq., and resolved,—
That the directors' report and statement of accounts for the half-year ending 1st March, 1869, be received and adopted.

Moved by the CHAIRMAN; seconded by CHARLES H. CHAYTOR; and resolved,—
That a dividend at the rate of Twenty per Cent. per annum, or Five Shillings per share (free of income tax) be declared for the half-year ending 1st March, 1869, payable to the proprietors now registered in the books of the company, upon the 1st day of May proximo.

Moved by GEORGE WRIGHT, Esq.; seconded by GERVAS L. TAYLOR, Esq.; and resolved,—
That the thanks of the meeting are due, and are hereby given, to Thomas Hone, Esq., for his conduct in the chair, and to the Board of Directors, for their attention to the interests of the company.
WILLIAM S. KILDAHL, Secretary.

In the Matter of the Companies Acts, 1862 and 1867,

AND IN THE MATTER OF

THE VALGODEMARD MINING COMPANY (LIMITED),

THE CREDITORS of the ABOVE-NAMED COMPANY are REQUIRED, on or before the 1st day of June, 1869, to SEND THEIR NAMES AND ADDRESSES, and the PARTICULARS OF THEIR DEBTS OR CLAIMS, and the names and addresses of their solicitors (if any) to Alfred Good and James William Lukis, the Liquidators of the said company, at their office, situated at 71, Cornhill, in the City of London; and, if so required by notice in writing from the said Liquidators, are, by their solicitors, to COME IN AND PROVE THEIR SAID DEBTS OR CLAIMS at the Chambers of the Master of the Rolls, situate in the Rolls-yard, Chancery-lane, in the county of Middlesex, at such time as shall be specified in such notice; or, in default thereof, they will be EXCLUDED FROM THE BENEFIT OF ANY DISTRIBUTION made before such debts are proved. Tuesday, the 15th day of June, 1869, at Twelve o'clock at noon, at the said Chambers, is appointed for hearing and adjudicating upon the debts and claims.

ROBERT MARSHALL, Chief Clerk.

VALLANCE AND VALLANCE, 20, Essex-street, Strand, London (Solicitors for the Liquidators).

Dated this 10th day of April, 1869.

In the Matter of the Companies Acts, 1862 and 1867,

AND OF

THE GREAT NORTHERN COPPER MINING COMPANY OF SOUTH AUSTRALIA (LIMITED).

THE CREDITORS of the ABOVE-NAMED COMPANY resident in Europe are REQUIRED, on or before the 20th day of May, 1869, and the CREDITORS of the ABOVE-NAMED COMPANY resident elsewhere out of Europe are REQUIRED, on or before the 20th day of October, 1869, to SEND IN THEIR NAMES AND ADDRESSES, and the PARTICULARS OF THEIR DEBTS OR CLAIMS, and the names and addresses of their solicitors (if any) to James Lowell Price, of No. 13, Gresham-street, in the City of London, the official Liquidator of the said company, and, if so required by notice in writing from the said official Liquidator, are by their solicitors to COME IN AND PROVE THEIR SAID DEBTS OR CLAIMS at the Chambers of the Master of the Rolls, situate in the Rolls-yard, Chancery-lane, in the county of Middlesex, at such time as shall be specified in such notice; or, in default thereof, they will be EXCLUDED FROM THE BENEFIT OF ANY DISTRIBUTION made before such debts are proved. Monday, the 1st day of November, 1869, at Two o'clock in the afternoon, at the said chambers, is appointed for hearing and adjudicating upon the debts and claims.

JOHN WM. HAWKINS, Chief Clerk.

VALLANCE AND VALLANCE, 20, Essex-street, Strand (Solicitors for the Official Liquidator).

Dated this 8th day of April, 1869.

FOR SALE.

LOCOMOTIVE, PUMPING, AND WINDING ENGINES

By leading builders, and at greatly reduced prices;
STEAM CRANES, BOILERS, CASTINGS, WAGONS (on sale or hire);
RAILS, CHAIRS, POINTS and CROSSINGS, SLEEPERS, WIRE and HEMP
ROPE, and every description of RAILWAY and MINING PLANT
(new and secondhand).

Particulars and quotations on application to—

T. E. MINSHALL,

QUEEN STREET CHAMBERS, WREXHAM.

BRAGANZA GOLD MINING COMPANY (LIMITED)
IN THE PROVINCE OF MINAS GERAES, BRAZIL.

Capital £50,000, in 50,000 shares of £1 each.

Deposit for registered shares 2s. 6d. per share on application;
2s. 6d. on allotment.

Calls not to exceed 2s. 6d. per share, nor to be made at intervals of less than three months.

Deposit for fully paid-up scrip (to bearer) 2s. 6d. per share on application; the balance of 17s. 6d. on allotment.

CHAIRMAN.
CHARLES MORRIS, Esq., Director of the United Mexican Mining Company.

BANKERS.
THE CONSOLIDATED BANK, Threadneedle-street, and its Branches.

BROKERS.
Messrs. GEO. BURNAND and Co., 69, Lombard-street, E.C.

SECRETARY (pro tem.)—WILLIAM EDWARDS, Esq.

OFFICES,—No. 4, COLEMAN STREET BUILDINGS (48A), MOORGATE STREET, LONDON, E.C.

The Braganza Company's Mine is situated (as shown by the map on the prospectus) about midway between the St. John del Rey Company's Mine, Morro Velho, and that of the Don Pedro Norte del Rey Company. In the same district are also the celebrated Gongo Soco (which has yielded gold to the value of £1,000,000 sterling) and the Rosa Grande and Taquaril Mines.

Captain William Williams, who resided within two miles of the Braganza Company's Mine for ten years, and knows it well, reports of it—"In all my travels through South America and Australia I never saw so large blocks of quartz from any lode so rich in gold as those from this mine."

Six bags of the ore have been assayed by Messrs. Johnson, Matthey, and Co., and yielded rather over 22 ozs. of gold to the ton of ore. The ores of the other profitable mines in the district yield, on the average, only 1 oz. of gold per ton, out of which it is well known very large dividends are paid.

The mine stands high and healthy, and, being an open cutting, no pumping machinery will be required. Much preliminary work has been already done, and returns may be made as soon as the reducing apparatus is erected. There is abundance of labour, provisions, water, and pasture.

The total capital required to purchase and work the mine on a moderate scale is estimated at only £25,000. It is calculated that the net yearly profit from working on that scale (reckoning on the quartz yielding only 1 oz., and the alluvial soil only 1/2 oz., of gold per ton) will amount to £24,250, or more than 100 per cent. per annum on the capital employed. More extended workings, or a higher average produce of gold, would yield even a larger profit.

Prospectuses, with maps and full particulars, and forms of application for shares, may be obtained of the Secretary or Brokers, as above.

BRITANNIA LIFE ASSURANCE AND

INVESTMENT COMPANY.

(LIMITED).

CHIEF OFFICE,—1, LANCASTER PLACE, STRAND, LONDON.

This company has inaugurated a NEW PLAN of POPULAR ASSURANCE for miners, by forming a MINERS' SICK AND ACCIDENT FUND. Policies will be issued without respect to age at a uniform quarterly premium of 6s.

Managers of mines and other public works are earnestly requested to appoint correspondents in each of their works for enrolling members. Apply, for further information, to—
PERCIVAL HINDMARSH, Secretary.

M. R. P. S. HAMILTON

MINING AND REAL ESTATE AGENT,

AND PRACTICAL GEOLOGIST.

OFFICE,—No. 72, GRANVILLE STREET, HALIFAX, NOVA SCOTIA.

N.B.—Sales and purchases of lands, quarries, and mining property negotiated upon the most advantageous terms, and with all possible dispatch. Explorations made or supervised, and reports prepared where required with the utmost care. Public attention is called to the fact that, owing to his experience as Gold Commissioner and Chief Commissioner of Mines, and as one who has been for years engaged in practical mining and geological explorations, Mr. HAMILTON has had opportunities which no other person has heretofore possessed or becoming intimately acquainted with the mineral resources of Nova Scotia.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 10—	Frank Mills	105	£17 12 6	Sheldon, Bush, & Co.
—	ditto	50	14 3 6	Sims, Williams, & Co.
—	ditto	30	9 14 6	ditto
—	Foxdale	100	13 16 6	Stock and Co.
—	Llanerbyrhafn	10	13 16 6	Sims, Williams, & Co.
12—	Trewetha	35	25 6 6	ditto
—	Glogfawr	40	14 5 6	Panther Lead Co.
—	Frongoch	120	11 18 6	Walker, Parker, & Co.
—	East Darren	75	18 5 6	Stock and Co.
—	Goginau	36	17 3 6	ditto
—	Gwm Erian	45	16 5 6	ditto
14—	Dyffryn	47	12 11 6	Walker, Parker, & Co.
15—	Whitwell	12	17 6 6	Glover.
—	ditto	15	12 5 6	Runcorn Smelting Co.

BLACK TIN.

Date.	Mines.	Ts. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
April 1—	Prosper United	10 8 0 24	£24 17 6	£279 10 1	Trevelin.
—	ditto	3 5 2 21	61 10 0	221 9 0	ditto
„ 10—	Rosewall Hill, &c.	4 10 0 0	75 0 0	342 0 0	ditto

COPPER ORES.

NO SALE on Thursday last, April 15.
Copper ores for sale at the Royal Hotel, Truro, on Thursday next—Mines and parcels.—Devon Great Consols 1418—Marke Valley 488—East Caradon 194—Okeford 180—Gawton Copper Mine 135—Gonavena 119—Kelly Bray 100—Prince of Wales 100—Hingston Down 63—Bedford Consols 9.—Total, 2826 tons.

Copper ores for sale at Tabb's Hotel, Redruth, on Thursday week—Mines and parcels.—South Caradon 503—Clifford Amalgamated 215—West Dannel 204—Phoenix 304—Great North Downs 185—North Trearkerby 83—Craddock Moor 83—Ordnance Consols 80

THE NEW ZEALAND QUARTZ CRUSHING AND GOLD MINING COMPANY (LIMITED).

CAPITAL, £50,000, IN 25,000 SHARES.

First issue, £25,000, in 12,500 shares of £2 each; 10s. to be paid on application, and 15s. on allotment; the remainder three months after. No further capital called without consent of shareholders.

DIRECTORS.

EDWIN LANKESTER, M.D., F.R.S., Coroner for Middlesex—CHAIRMAN.
Major-General DOWNING, Director of the Don Pedro Gold Mining Company.
J. GOULD AVERY, Director of the Great Britain Mutual Life Society.
Hon. J. TOBIN, Chairman of Trustees, Nevada Properties Trust.
G. KERR (Gilbert, Kerr, and Co.), 3, Abchurch-lane, E.C.

ABRIDGED PROSPECTUS.

The object is to employ machinery on the Thames Gold Field. It is easy of access, and the reefs contain an amount of gold exceeding any ever yet recorded—15 out of 700 square miles, auriferous, are only yet occupied. Authentic information states that out of the 1500 claims open not 50 have machinery, but the miners, said to be 15,000, knock out the gold with hammers, and an instrument like a paviour's rammer.

Manukau Claim realised 356 ozs. from 25 tons of stone; Kelly's Claim, 8307 ozs. in five weeks' crushing; Heildt's Claim, 75 ozs. from 10 tons of quartz; Golden Crown Claim realised 2524 ozs. from 97 tons of stone; Lucky Hit Claim, 77 ozs. from 1 cwt. of stone; Prince of Wales yielded at the rate of 20 ozs. to the ton; Sink to Rise, 86 ozs. from 1 cwt. of stone; Just in Time, 810 ozs. from 2 cwt. of stone; Tapu Gold Mining Company, 32 tons yield 113 ozs. retorted gold. The stone; said to be 15,000, knock out the gold with hammers, and an instrument like a paviour's rammer.

From Hunt's Claim the yield of 1500 ozs. was obtained from 16 hours' crushing, and in four days the out-turn was 5207 ozs.—See Money Article of the Times, Oct. 1, 1868.

There are thousands of tons of stone lying waiting for machinery.—New Zealand Herald, Nov. 2, 1868.

The want of crushing machinery suited to the peculiar fineness of the gold is at present the greatest drawback to the progress of this field, but only second to it is the insufficient number of any sort of machines that will save gold.—Southern Cross.

The Shortland Times, Dec. 21, says hundreds of thousands of tons of quartz are piled in all directions, waiting for machinery.

To supply this demand for machinery, and to work for the miners, and crush at per ton, or the rate ruling at the mines, and also on the usual terms of sharing the profits, is the object in view, for which purpose the directors have engaged a gentleman of high character, well experienced in Australian gold mining, who has agreed to make his remuneration entirely depend on success, by accepting a proportion of fully paid shares, and a small percentage on the profits.

Advantages are freedom from risk or speculation, and lowest estimate of profits is shown to be 75 per cent. See full prospectus.

An engineer of character and ability, and 17 years' experience in quartz crushing and gold refining, has been provisionally engaged.

Complete prospectuses, forms of application, and manager's plan of operations, can be had by applying to the brokers, Messrs. POWER and DAVIS, or to the Secretary, at the temporary offices of the company, 28, Moorgate-street, City.

JOSEPH SIMPSON, Secretary.

Notices to Correspondents.

GREAT WHEAL VOR.—The market price of this mine has increased in value during the last three months more than 50,000%. Is this increased value owing to discoveries in the mine, or to the advance in the price of tin? I think that when there is a discovery Mr. Noakes, the purser, ought to inform the shareholders of it. Whatever he says is readily believed, but shareholders read with suspicion the puffing circulars of mine brokers.—A SHAREHOLDER.

GREAT WHEAL VOR.—There have been so many conflicting reports lately as to the actual state of this mine and its future prospects, that I beg you will allow me to state that the mine was carefully and minutely examined last week, on my behalf, by Capt. Edwin Ridington, of Helston (acting as a friend, and not as a paid agent); and that he reports the value of the various lodes at present to be no less in the aggregate than 355, per fathom, with every prospect of rapid improvement in many points of great importance. The discovery at the 157, under Edwards's shaft, he values at 35l. per fm., and 2 ft. behind the end, "a splendid lode, worth 150l. per fathom." Shareholders may accept the above condensed report as perfectly and entirely reliable.—ONE OF THE LARGEST SHAREHOLDERS.

CENTRAL SNAILBEACH (Salop).—Can any party connected with this mine inform me how we are to understand the varied reports issued by Capt. John Killo?—On March 15 a report was issued to some of the shareholders, but not all, informing them that he had driven through the lode in the 200 yard level cross cut; that it was 4½ ft. wide, looking promising, &c. In last Saturday's Journal appears a report, stating that he was not through the lode (as he had before stated), but had ordered the men to drive through it, which ought to have been done when the lode was reached. Would any practical miner or manager have neglected driving through at once under existing circumstances of the company, or under any circumstances, for over a month? and especially, as he has admitted the hanging side being "the invariable" side on which ore has been discovered above, which is true. Can I be informed why the ore he admits as discovered above has not been got, to prevent the present crisis and our threatened winding-up? Could not some of the ore discovered above have been got as cheaply some years ago as it will be ever possible to get it in the 24 yard level shaft, and more than 1½ year ago in the 164? Why has it not been brought to bank to show the real value of the mine? which has not been done, only in "all talk"—not understood fully, or believed by many of the proprietors. If it had, would there have been need to raise more capital? May I ask is there not urgent necessity for immediate change in the policy and management of our mine, ere it be too late?—A SHAREHOLDER.

ASSAYING ORES AND MINERALS.—The best works to consult upon this subject are—Manual of Practical Assaying, by John Mitchell: new edition, revised by William Crookes, published by Longmans and Co. Manual of Chemical Analysis, by Dr. Nood, published by Lovell Reeve. Technical Analysis, by Dr. Paul (partly a translation from Dr. Bolley's Handbuch der Technischen Chemischen Untersuchungen), published by Bohn, York-street, Covent Garden. The two last are excellent manuals, and very cheap.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, APRIL 17, 1869.

ARBITRATION IN THE IRON TRADE.

Mr. RUPERT KETTLE has not only accepted the position of umpire, to determine the difference on the point of wages between the ironmasters of the North of England and their men, but he has already taken the first step towards a solution of the question. On Monday he met the Standing Committee at Darlington; ascertained the precise points of difference between the two sides; and was furnished with documentary testimony in further elucidation of the respective contentions. This he carried away with him to his residence in Wolverhampton. After having made himself familiar with the contents of the documents, he will express himself upon them in writing a few days hence, so as the better to guide the Committee as to the nature of the further information which he may desire should be brought before him on April 30 and May 1, when both sides will again meet, to finally adjust the existing difference.

The Journal has taken advantage of all fitting occasions to express its satisfaction at every step taken by either masters or men, calculated to promote the existence of the amicable relationship which is necessary to the prosperity of both, and the maintenance of our trade. The results which have followed upon the adoption of the methods of conciliation or arbitration, as the case may be, with which the name of Mr. KETTLE is associated in the building trades, that of Mr. MUNDELLA in the lace trades, and that, again, of Mr. HOLLINS in the potters' trade, seem to point irresistibly to a means of adjustment of differences between master and man, such as should be cultivated wherever possible. The importance which the Trades Union Commissioners attach to them is thus set forth in the report which the majority adopted, and which bears the names of seven of the whole number:—

"These boards (mentioning those only in Nottingham and in the potters' trade) require no complicated machinery, no novel division of profits, no new mode of conducting business; they need no Act of Parliament, no legal powers or penalties. All that is needed is that certain representative employers and workmen should meet at regular stated times, and amicably discuss around a table the common interests of their common trade or business. There is not a trade or business in the United Kingdom in which this system might not at once be adopted; and we see no reason why, in every case, results should not follow from the establishment of Boards of Conciliation, as satisfactory as those in Nottingham and in the Potters' trade. Under such a system we should look hopefully for a peaceful and prosperous future for the industry of this country. And if this Commission were to have no other result than to be the means of drawing attention thus pointedly to this simple, speedy, practical way, not so much of settling, as of anticipating and preventing, disputes between masters and workmen, and of establishing lasting friendly relations between capital and labour, we believe our time will not have been mispent, and that good will come of our enquiry."

But, unfortunately, the first attempt to apply conciliation to the iron trade has hitherto proved a failure. This has been brought about by two causes chiefly. In the first place, an efficient code of rules had not been laid down; and in the next the discussions did not take place under the guidance of a Chairman who, uninterested pecuniarily in the result, would take care to keep both sides so closely to the relevant point of argument as to prevent the saying of that on either side which would commit the parties to a course of action which would not otherwise be pursued.

Upon both these points the testimony of Messrs. HUGHES and HARRISON, in their joint report, is:—

"It appears to us that the fact most plainly visible throughout the evidence is the uniform approval of a system of working rules agreed to between employers and employed, and still further of the existence of some recognised Board of Arbitration to give these rules consistency, and to interpret their effect. The

evidence of a succession of witnesses on both sides points to the importance of a settled code of rules, which should, if possible, embrace wages, and every detail of arrangement."

The witnesses who are here named are Messrs. APPLEGARTH, ALLAN, POTTER, HARNOTT, COULSON, HANSLEY, W. McDONALD, PONDFOOT, A. McDONALD, NORMANSELL, WILKINSON, LEICESTER, MUNDELLA, HOLLINS, and LEVEY. The Commissioners then add:—

"And this notion pervades the whole of the very remarkable evidence of Mr. RUPERT KETTLE and Mr. MUNDELLA. Where a distinct code of rules exists, no questions appear to arise but those of interpretation, and we find the employers on perfectly amicable footing with the Union, and both parties often co-operating with each other. Almost all the injurious or vexatious practices with which Unions have been charged disappear where a well-recognised code of general rules exists, with a competent authority to maintain and explain them. The element of due notice, before change on either side, alone effects the greatest results in removing sources of dispute. The difference between the one state of things and the other appears to us to be that between a morbid and a healthy state of the industrial relations. When the great advantages of the system of a code of rules and prices is further supported by a Board of Arbitration, it appears to us the nearest solution of the labour and employment question which has yet shown itself. These spontaneous Boards of Arbitration are now general enough to afford considerable experience, and their value to us appears inestimable. It seems, however, plain to us that these codes of rules, and the Boards of Arbitration, are in their nature spontaneous, and can receive not the slightest direct aid from any legislative source, which the promoters themselves reject."

Here the Commissioners mention the evidence upon this point of Messrs. MUNDELLA, KETTLE, and HOLLINS, and state:—

"It does, however, appear that the existence of associations of some kind is indispensable to the formation of either codes of rules or Boards of Arbitration."

In support of this the Commissioners again quote the witnesses just named, and, continuing, say:—

"But in a great degree the Unions lead up to these ends, and merge their own separate action in them, without ceasing to exist. A result of this kind would be, we are disposed to think, the most easy and the most natural issue of the question of Unionism, and it is one in which the Legislature might indirectly co-operate. On the one hand, whatever tends, in our judgment, to improve the existing Unions, and to get them to co-operate in sound mutual agreements with employers. On the other hand, we think that some facilities might be given to the legal machinery required for enforcing agreements made bona fide under such Courts, and to the awards of tribunals of arbitration regularly constituted, to which there had been a bona fide appeal."

This extract we have given entire, not because we approve of all the views expressed in it, but in order that it should not be charged against us that we record only those views of the Unionist representatives with which we concur. We do not, for example, believe in the necessity of a Union in order to a conciliation or an arbitration board; but, on the contrary, as we have stated on previous occasions, rather regard the existence of such boards to make combinations appear to the most thoughtful of the artisan class more than previously unnecessary. But we do believe that if in the iron trade there existed a code of working rules somewhat like those which Mr. KETTLE has drawn up for the builders, and if there had been an independent Chairman presiding over the discussions which have already taken place in the North, then that there would have been no appeal to the arbitrament of an umpire. We do not fail to bear in mind that to adapt a code of rules to the iron trade is a much more difficult task than to frame a list of regulations to guide the master builders and the carpenters and joiners; but that knowledge does not prevent us from believing in the possibility of the undertaking. Let leading regulations bear the relationship to the iron trade of the common law code to our national jurisprudence, and then let there be a code of special rules assimilating to special cases.

It will be greatly to be regretted if Mr. KETTLE, after he has adjusted the precise point of the existing divergence, is not solicited to express his views upon a working code for the iron trade; and we much mistake if he does not so characterize both sides when they meet before him on April 30 and May 1 as to leave the impression that if he had been present at the earlier sittings a point of agreement would have appeared which would have enabled them to agree without his interposition, or the interposition of any other person. Indeed, we are quite prepared to learn that even at that late hour it was possible to keep them so well in hand that a solution was arrived at without the arbitrary ruling of the umpire. So successful has Mr. KETTLE hitherto been that on only two of the many occasions on which he has had to arbitrate points of the utmost delicacy in the relationship of capital and labour has he had to declare the course to be ultimately pursued by either the one or the other. Nor should it be forgotten that when Mr. MUNDELLA has been absent from the Nottingham meetings he has been represented in the capacity of umpire. It is no derogation to the ironmasters and their men in the North of England that they should ask the aid of such a man as Mr. KETTLE. It is only for passing regret that he or someone equally skilled in such matters was not with them at their earlier sittings; but now that he has been called in the results, we have no doubt whatever, will be to strengthen, and not to weaken, the cause of a mutual settlement of trade disputes at a time when it was feared in some quarters that it would receive a severe blow.

The men of the North will be strengthened in their confidence in Mr. KETTLE on learning that he has been called in to arbitrate between the Manchester builders and their carpenters and joiners.

THE COLLIERS' FUND IN SOUTH STAFFORDSHIRE.

For some years now there has been lying in the Wolverhampton and Staffordshire Bank, at Wolverhampton, in the names of trustees, a sum of upwards of 2000l., obtained, we believe, by the Inspector for South Staffordshire and Worcestershire, as the share of his district in the surplus of the Hartley Colliery Fund. A sum of about equal amount remained for the district from the fund raised to relieve the sufferers from the Talke and Oaks explosions. In North Staffordshire, as was lately noticed in our pages, similar funds are to be employed to form a nucleus for a provident fund, to relieve the distress which ensues on colliery accidents, and this use of it has the great advantage of stimulating men and masters to permanent efforts, for the purpose of providing against such calamities.

In South Staffordshire, however, no such step has been taken. The money has lain as a deposit, receiving, we imagine, very small addition in the shape of interest. A mode of disposing of it has, however, been suggested, and is, we hear, likely to be carried out, unless quickly prevented. Additions are to be made to the South Staffordshire Hospital, and under the plea—shall we say the pretence—that the new wards would be by preference devoted to miners, it is sought to divert this fund for assisting distress to enlarging the hospital, which is by no means of special advantage to that class. It is also

said that a similar institution at West Bromwich is to have a share. These objects are, no doubt, good, and so are many others which might be named, but the bestowal of these funds upon them would not be acting in accordance with the spirit which prompted the gifts, and it would be to miss a great opportunity for establishing amongst miners a permanent means of providing for the sufferers by accidents, whether the injured, or those dependent on the killed. Have the working miners nothing to say on this question?

THE COLLIERY DISPUTES IN YORKSHIRE.

Seeing that another of those severe struggles between capital and labour which have rendered the colliery districts in South Yorkshire so notorious for many years past is now taking place, a brief resume of the actual position of affairs may not be without interest. For some months past we have prepared our readers for a change in the relations between the employers and their men rendered necessary by the depression in the trade and the low prices which have prevailed for all qualities of coal. Still the present movement is suggestive of more than appears at first view, and it is not saying too much that the policy being adopted by some of the coal owners to no small extent can be traced to the efforts made by the Colliers' Union some two years since to introduce their principles into various parts of Derbyshire. It will be recollected that towards the close of 1866 a great miners' demonstration was held at Chesterfield, for the purpose of forming a Miners' Union for Derbyshire and Nottingham. Singularly enough, it was determined to attack the position of the strongest company in the county of Derby, and the attempt was so far successful that the larger part of the miners who had long been in the service of Mr. BARROW, and on his retirement, of the Staveley Company, left their work, and joined the Union. For some months they were supported by the funds of the South Yorkshire Association; but, through the determined opposition of Mr. C. MARKHAM, the managing director, who from the first informed the men that on no consideration whatever would Unionists be employed, the whole thing collapsed, after an expenditure of some thousands of pounds, and the entailing of great misery on the misguided men and their families. The next attempt was made in the Burton-on-Trent district, at Church Gresley, but a course similar to that at Staveley was pursued, and the men in June last gave up the contest, admitting their defeat. Before doing so, however, the leaders of the Unionists offered to submit the matters in dispute to arbitration, and Mr. MUNDELLA tried his hand in bringing about an agreement, but he was informed by the colliery proprietors that they thoroughly understood their own business, and could not allow the intervention of a third party who should be empowered to say in what way they should conduct their business, or upon what system their trade should be conducted. The colliery owners of South Yorkshire have not been blind to the above facts, for, having watched with a deep interest the progress of events in Derbyshire, and looking to the successful opposition to the Unionists there, they are now desirous of freeing themselves from the same influence. Indeed, it was only a few days since, whilst visiting the Denaby Main Colliery, that Mr. POPE, the managing partner, alluded significantly to the efforts of Mr. C. MARKHAM, at Staveley, and the success which attended them, and said that he intended adopting a similar course, and that the colliery for the future should be worked on the free labour principle. As to the advantages of such a system, we need only allude to the evidence given by Mr. MARKHAM before the Trades Commission, in which he stated that during the few years the Staveley Company had been in existence they had paid more than 12,000l. for school houses, workmen's hall, &c., and had recently given 2000l. towards forming an accidental assurance fund. "If," said Mr. MARKHAM, "a Union were established at our works, all those relations between ourselves and our men would entirely cease. We should break up our schools, and let the men do what they liked. At present we consider ourselves morally bound to do all we can for the benefit of the men and their children." The wages argument, however, has always been the main one relied upon by the Unionists for propagating their views; but upon that point Mr. MARKHAM says—"If you were to appoint a commission to enquire into the amount of wages paid, it would be found that the rate of wages in our district is higher than in any Union district in the kingdom." Such is the state of affairs at Staveley, and the coal masters of Yorkshire are desirous of emulating those of Derbyshire, and where peace, good wages, and social progress have long been felt and experienced from Staveley to Burton-on-Trent.

In Yorkshire matters are in a very different state. At Chapeltown and Thornecliffe the collieries of Messrs. NEWTON, CHAMBERS, and Co., which are amongst the most extensive in Yorkshire, the ironworks and pits of the firm giving employment to nearly 5000 persons, are now closed. The firm a short time since determined to treat with their men individually, and, for that purpose, gave them the usual month's notice. The men, however, refused to be dealt with, and the result is that they are now out, and are likely to remain so, as Mr. CHAMBERS appears determined to carry out the conditions on which he proposed to conduct the business relations between himself and his workpeople. At Tinsley Park and the Manor Pits of Mr. HUNTSMAN there appears no likelihood of either side giving way. There are, therefore, now about 1600 men out of work, and maintained by the Union at a cost of 800l. per week. In addition to the collieries enumerated, it is stated that at several other collieries in the district a reduction of wages is contemplated, and which is rendered highly probable from the fact that the coal owners of South-West Lancashire have given notice of a 10 per cent. reduction. Should such turn out to be correct, there will be still farther complications, as it is not at all likely that the men would submit to a reduction, so that in all probability a large number of those who have helped to support those on strike will themselves be thrown on the Union funds—a prospect certainly by no means cheering.

With regard to the Miners' Union, we are free to admit that it has done a great deal of good in supporting the widows and orphans of men killed in mines, and those unable to work. It appears that during the last two years and a-half it has contributed nearly 9000l. in liquidation of claims for the objects named, and paid as much as 10,000l. a-year for various benevolent purposes. On the other hand, it had spent many thousands of pounds in endeavouring to establish Unions in other districts, but only to be unsuccessful, and to leave behind a train of misery and want. The managers, Messrs. NORMANSELL and CASEY, are men of considerable administrative ability and energy, and about the only two in the colliery body who have given evidence of having the rare talent of leading and giving expression to their views in terse and forcible language. But for them the association, we believe, would have long since collapsed. We are, therefore, not surprised to find that, for the purpose of enlisting sympathy, and making a show of justice in the cause in which they are embarked, they have made an effort to refer all matters in dispute to arbitration. But what there is to be referred at Denaby and Chapeltown we are unable to see. Mr. POPE merely says he will not employ men belonging to the Union, and Mr. CHAMBERS only asks to deal with his men singly. Still, the offer has been made, and a copy of the following circular has been addressed to all the colliery proprietors in the South Yorkshire district:—

The Council of the South Yorkshire Miners' Association, at their meeting on March 29, decided (on the grounds of their extensive experience in all kinds of disputes between capital and labour, and strengthened with the recommendation of the Royal Commission on Trades Unions) to use every endeavour to establish Courts of Conciliation and Arbitration in the mining district of South Yorkshire, with a view of preventing the disastrous consequences so often resulting from strikes and lock-outs; for this purpose I am instructed to forward a copy of the resolution passed on that subject for your consideration:—

"That this Council having had eleven years' experience in all mining questions affecting capital and labour in South Yorkshire, consequent upon the many and various strikes and lock-outs that have taken place during that period, are of opinion that every effort should be used by the Association to bring about Courts of Conciliation and Arbitration, with a view of settling the present disputes and all similar disputes that may occur in the future, and that circulars be issued, containing their resolutions, to the colliery proprietors, inviting their co-operation in the formation of such Courts as early as convenient."

Should this principle meet with your approbation, your influence and co-operation in the formation of such Courts will be highly appreciated and supported by the miners of this great and important district. An early reply, containing your views upon the matter, will oblige.

Now, we have no hesitation in asserting, notwithstanding all that has been said by Mr. MUNDELLA and others as to the advantages of Courts of Conciliation and Arbitration, that there is not the most remote chance of the South Yorkshire colliery owners aiding in introducing the system into the district. Indeed, we will give Mr.

NORMANSELL and **Mr. CASEY** credit for knowing that it would not be accepted. Coal mining is different to most other branches of industry. It is wages is the most important item, costing, in many instances, fully one-half, if not more, than the mineral realises in the market. **Prof. LEONE LEVI** estimates that the miners of England and Scotland earn 15,000,000, annually. Now, the actual value of all the minerals raised in the United Kingdom and Ireland for 1867 amounted to 34,169,797, of which the coal is calculated at 26,125,145. It will thus be seen what a very important part wages plays in the raising of coal, and it is, therefore, not very surprising, as that is the identical point upon which most disputes will centre, that the employers are not likely to delegate the power they have of making terms with their men to persons who have no interest whatever in the success of works in which a very large capital has been expended. As it is, the battle will have to be fought out by both parties, and there is no reason to fear but what right and justice will prevail over attempted dictation and coercion, and that the result will be alike advantageous to masters and men ensuring to both that liberty of action to which they are entitled, as well as securing the freedom of labour as an individual right.

A MINING SCHOOL FOR WALES.

We believe that our readers who are residents in the Principality will do us the justice to admit that the establishment of a Mining School in their midst is a subject which we have often advocated and urged with all the weight and power at our command. The importance of such an institution can scarcely be over-estimated—it is “a summation most devoutly to be wished for,” and one which cannot fail to have a most material effect upon the future prosperity of the great mineral and commercial industries centred in their midst. Theoretically the subject has many warm, earnest, and zealous supporters, but practically no substantial exertions have been put forth; and it is to arouse, if possible, an active and unanimous effort that we once again appeal to the large colliery proprietors, iron merchants, and traders generally in a matter which so deeply affects their interests, and connected with which so much of the future weal and prosperity of the Principality depends. Commercially speaking, Wales is yet in its infancy, and probably there is no county in the United Kingdom which is more rich in mineral products than Glamorganshire. It is certainly within the memory of the present generation that its commercial prosperity has been achieved. The great majority of the busy towns and active centres of population—the “hives,” as such are not inappropriately termed—have been called into existence within the last 25 or 30 years. Merthyr and Aberdare, the seats of some of the largest iron works in the world, were altogether unknown some 30 years since. Cardiff and Swansea were little fishing villages some half-century back. The towns generally of South Wales have trebled, quadrupled, and quintupled their populations within the like period, and substantial enterprise and active commercial prosperity (despite the depression which has for some time past and still characterises the staple trades) are now to be witnessed on all sides. Notwithstanding, however, the rapid development of the mining industries, and the gigantic strides made in all which constitutes the greatness and prosperity of the Principality, there is, in our opinion, no reason to doubt the still greater expansion of trade, and the extension of its mineral wealth.

The coal fields of South Wales are, practically speaking, almost untouched, the iron works have every facility for almost unlimited expansion, the tin-plate works are being constantly enlarged, whilst almost every week fresh works, which cannot fail to have a most important commercial bearing upon the future of the Principality, are being opened in its midst. Wales is now unquestionably the *locus* to which the attention of the capitalists and manufacturers is being directed, for in no other place in the United Kingdom is there a greater amalgamation of favourable circumstances for the development of trade. Wales has had a vigorous youth, but, with proper culture and scientific treatment, still greater success will attend the exertions of its merchants and capitalists. But its trade and commerce—its mineral “life”—must be carefully watched and promoted; it must be tenderly and assiduously nursed. There is no more effectual way so to do than the establishment of a Mining School, and it is our solicitude for its vast mining and industrial pursuits which induces us once more to urge the importance of the establishment of such an institution.

Although Wales is, unquestionably, commercially prosperous, there can be no doubt, on the other hand, that the great majority of its mining and labouring population are woefully ignorant, and ignorant upon those very topics which are associated with their everyday life, and upon which their comfort and existence so much depend. The proprietors of large works have, with most commendable zeal and kind consideration, established schools in connection with their works, and the moral teaching of these schools will have a salutary effect upon the young and rising youth; but the education afforded thereat is not of that technical and practical character which is now so urgently needed. The “education” we now advocate is an altogether different thing. We urge an adult education, fitting a man to take the practical and scientific management of a large colliery—working it with the greatest safety and comfort to the colliers on the one part, and the pecuniary advantage of the proprietor on the other. We want an education which shall have a practical effect upon the ventilation and successful working of a colliery; the treatment of iron, steel, ores, and metallurgy generally, and other cognate matters, which is essential to be thoroughly understood by those whose avocations are connected with such works. In a word, we require an education which shall render competent men to undertake the successful management of those gigantic works which abound in the Principality, and to carry them out with even greater success than now characterise them. This education is rendered necessary by the greater competition which will be evoked by the scientific knowledge brought to bear, and this education can alone be achieved by means of a “Mining School.”

Taking it for granted that nobody can doubt the immense advantages which have accrued from the establishment of similar institutions in other parts of the country, or the urgent necessity for such a school in the Principality, we venture to throw out a suggestion, which we believe if acted upon would soon bring about so desirable a result. Our suggestion is simply this—that the subject should be taken up by the South Wales Institute of Engineers. This society, which is of comparatively recent birth, numbers amongst its members some of the most eminent practical miners and engineers of the present day. It is in every respect a prosperous society; its members are active, intelligent, and zealous of all good works; its funds are in a satisfactory state; its papers have been of a most interesting and valuable character, exhibiting a practical knowledge of those many important subjects appertaining to the interests of the mining world generally. There is scarcely a firm of any commercial repute throughout the Principality which is not connected with the South Wales Institute of Engineers in some shape or other. There is, therefore, in this society a voucher for the accomplishment of great things. The grand object of both—the Institute on the one hand, and the Mining School on the other—would be the same, the practical education of the miner and engineer. We set before the Institute, therefore, an object worthy of their most serious and earnest consideration. Much good has already been accomplished by their efforts—here is a field of labour in which they would win for themselves credit and renown. If the members of the Institute would but act upon the suggestion which we have now thrown out success would assuredly follow. The leading firms in the Principality would be already enlisted in the welfare of the school, the general public would feel confidence in the success of the scheme, and would accord it their cordial approval and support. We hope that at the next meeting of the Institute the subject will be brought forward, and taken up with that warmth and unanimity which characterise all the proceedings of the society, and we feel assured that if such be done a “Mining School for Wales” will be no longer a desideratum earnestly wished for, but that it will be speedily established, and its practical benefits felt and admitted throughout the whole Principality.

ABERDARE AND MERTHYR STEAM COAL COMPANY (Limited).—Vice-Chancellor Sir R. M. Jones has appointed Mr. Gibbons, of the firm of Hardy and Co., provisional liquidator of this company.

MINING, METALS, AND MINERALS—PATENT MATTERS.

BY MICHAEL HENRY,

Patent Agent and Adviser, Memb. Soc. Arts, Assoc. Soc. Eng.

Mr. HENRY BROOK WOODCOCK, of Low Moor, Bradford, has obtained a patent for an invention relating to a new manufacture of metal. This invention relates to an improvement in the manufacture of metal especially suited for axles, shafts, rails, tyres, and other purposes where hardness and malleability are required, so as to produce the same in a comparatively inexpensive, simple, easy, and rapid manner, resembling steel as regards density, with more or less the hardness and durability thereof, while retaining the tenacity and ductility of wrought-iron. In carrying out this invention steel bars are employed in the puddling-furnace during the process of puddling pig or refined metal into wrought-iron, such steel bars being put into small pieces, the quantity or proportion of the steel bars varying from about one-twelfth to one-third in weight of the mass to be mixed, according to the purpose and degree of hardness and malleability required. The mass is then boiled, puddled, and worked together by the puddler in the ordinary process of puddling. In the manufacture of this metal care must be taken that the pieces of steel are equally distributed and well mixed with the metal in the puddling furnace, so as to ensure the mass being as homogeneous as possible. The steel which is preferred for mixing with pig or refined metal in the puddling furnace is blistered steel, but other descriptions of steel, known commonly as cast-steel, may be used.

Mr. JAMES EVANS, of Wednesbury, has specified a patent for machinery for finishing and welding iron and steel tubes. This invention refers to the welding or finishing of iron or steel tubes, whether tapering or parallel, in their length, and it consists in employing for such purpose a double set, or two rows, of dies, arranged opposite to, and as counterparts of, each other, in slide-rests upon a bed, and they are capable of advancing and receding in a horizontal or vertical direction to or from the centre of the machine, so as to compress or close around, and securely weld the tube, which is drawn in a heated state from the fire through the sets of welding or gripping tubes, upon an ordinary draw-bench. The advancing and retiring action of the dies may be obtained by means of lever-handles collared upon shafts or spindles, upon which are also collared connecting pieces attached to the transverse bars or slides of the die-holders or carriages; or such motion may be given by means of right and left handed screws, in connection with toothed wheel-gearing. One set or row of the dies may be stationary, whilst the other set or row is caused to move as required; or both sets may move simultaneously, or each pair of the sets of dies may be made to close upon the work in succession for the gradual completion of the tube, which is passed through the dies any required number of times, and by forming such dies or tools of a suitable contour the tubes may be drawn through them, so as to weld, and also produce a reeded, fluted, or other similar outline to the tube or section.

Mr. WM. C. HOLMES, of Gracechurch-street, has also obtained a patent for apparatus used in the manufacture of gas. Illuminating or heating gas in the course of its manufacture undergoes several processes of purification in separate apparatus. The object of this invention is to combine such apparatus into a compact and convenient form, so that economy of space and construction may be effected. The combined apparatus consists of a washer, scrubber, and condenser, and is formed into three distinct chambers; the lower one fitted with trays, and adapted as a washer; the upper and inner one, in which may be placed coke breeze, or other suitable material, fitted with grids or not as a scrubber, while the outer chamber serves as a condenser. Attached to the top is a funnel or vase-shaped vessel supplied with water, which constantly trickles down the interior of the upper and inner chambers from a horizontal pipe, having a number of small holes therein, and connected with the vase before mentioned. The water after percolating the coke breeze, or other material, and falling to the bottom of this chamber, descends to the lower chamber or washer, where it is intercepted by shallow trays, over which the water falls in succession. Openings are provided at different points to obtain access to and remove from the interior any obstruction that may arise.

COAL-CUTTING MACHINE.—An improved machine for cutting coal has been patented by Messrs. GILLOTT and COPLEY, of Chapelton, York, the leading feature in which appears to be the making of the cut outwards instead of inwards, as usual. The cutters commence to operate at the bottom of the groove. The inventors state that they propose to employ a horizontal revolving wheel or disc, having a series of cutters mounted on the periphery thereof, such cutters being made to cut outwards or from the bottom of the groove or undercut to the face of the working, whilst the body of the machine itself takes its bearing against the face in order to resist the strain of the cut. In some cases one or more guide-rails may be employed in addition. The whole is mounted on a suitable carriage, made sufficiently low to admit of the cutters getting well down to the bottom of the face, for the purpose of “holing in” the bottom when required. The cutter-wheel is rotated slowly but powerfully by the aid of spur, bevel, and worm gearing carried on the main framing. The readers of the Journal will be glad to learn the success attending the practical working of the machine.

MANUFACTURE OF ARTIFICIAL FUEL.—A machine, which it is claimed can agglomerate ordinary material, has been invented by Messrs. SALAMON, FRETEUR, and TROQUIER, of Paris. It is based on the principle of pressure by wedges, applied in a rotary manner. It is composed of a framework supporting the compression pieces and the mechanism which sets them to work. These compressors are set on the circumference of two circular plates or tables. Each of these plates is provided with openings or cells, in which slide compression pistons, arranged so as to meet each other, two and two, in order to grasp the material to be agglomerated. The number of pistons varies according to the size and number of balls or cakes to be produced in one revolution of the plates, and proportionately to the circumference of these latter. Each piston head is hollowed hemispherically, so that when two meet they form a complete sphere. The spherical shape is here described, balls being most generally made; but it will be readily understood that, in order to make brick or other shaped cakes, it is only necessary to hollow the head of the piston differently. A rotary motion is given to the plates by toothed gearing. In this movement each of the openings passes under a hopper fed by means of a bucket-chain, with material to be agglomerated. The material penetrates into the openings, filling them completely, and in order to render the operation regular a compressing stamper, set to work by the machine, is fitted at the upper part of the hopper, the effect of this stamper being to force the material into the chambers. The pistons terminate at the bottom in the shape of a wedge or bevel, and slide horizontally on inclined rails placed on each side of the plates, and so arranged as to insensibly approach the latter. The difference existing between the obliquity of this slope from the point where it commences up to its termination forms the exact stroke or journey of the pistons. The rotary movement of the plates causing the pistons to pass over the slope, the result is that these latter approach each other at the same time, and meeting grasp and compress the material to be agglomerated in the cavity in their heads. This pressure having taken place the ball or cake is made, and there only remains to free it from the pistons, which is done by means of a driver acting at the moment; the piston no longer pushed by the slope tends to resume its first position, this movement being facilitated by a spring. The piston is brought back to its primitive position by a second rail parallel to the first, against which it constantly keeps it. The ball, abandoned by the pistons, rolls on an inclined plane, from which it is removed for storage.

PRODUCING GAS FROM NAPHTHA.—The invention of Messrs. W. TATLOCK, of Frankfort, and C. N. ABELSETH, of Philadelphia, U.S., relates to the production of gas from naphtha or other volatile liquids, and the nature of the invention consists in the peculiar construction of the gas generator, through which a continuous current of atmospheric air is forced, all of such air being brought into contact with the liquid with which the generator is charged, and thereby impregnated with the inflammable matter contained in the same. They construct a cylindrical tank of any desired size, and place the same on a stand or base. In the centre of this tank they place a perforated pipe or hollow shaft, which where it passes through the head or end of the said tank is provided with a stuffing-box, made in the usual way to allow the said shaft to revolve freely in the tank without leaking. Upon this shaft inside the tank they place a perforated cylinder, made less in diameter than the tank to leave a space around it, and between it and the tank outside of this cylinder they place another cylinder, which is also perforated, a slight space being left between the two cylinders; this space they fill with cotton, batting, or other suitable material. The perforations or holes in these cylinders are small—say, about one-eighth or one-quarter of an inch in diameter—and very numerous. On the shaft just outside of the stuffing-box is placed a pulley or wheel, by means of which the shaft is put in motion, and outside this pulley or wheel an air-pipe is attached to the said shaft in such a manner as to allow the shaft to revolve without turning the said air-pipe; the latter is secured at its opposite end to a fan or blower, which may be made of any desired form and size, and driven in any suitable manner. In one end of the tank and near its lower side they place a pipe through which the contents of the tank can be drawn off at pleasure, and near to the centre of the same end of the tank is another pipe, by means of which they can ascertain when the proper amount of liquid is in the tank. The top of the tank is con-

nected with the gas-pipe leading to the burners, and another pipe is placed near one end of the tank, whereby the same is charged with liquid. If the tank is properly charged with the volatile liquid the perforated cylinder will be partly submerged in the same, and if they revolve the intervening cotton, batting, or other material will be continually saturated therewith. If the fan is put in motion a current of air will be forced through the air-pipe which leads from the said fan to the perforated pipe or hollow shaft, and through it into the inner perforated cylinder, through its perforations and the cotton, where it will be impregnated with the inflammable matter of the liquid with which the cotton is constantly saturated. The air and vapour combined will then pass through the perforations of the outer cylinder into the space between it and the tank, and thence into the gas-pipe leading to the burners.

COMPENSATION FOR INJURIES BY ACCIDENTS.

It is well known that in the present state of the law a workman cannot recover compensation from his employer for injuries resulting from accidents caused by the neglect of a fellow-workman, the principle recognised being that if the master supplies the necessary tools and facilities for carrying on his trade the workman (who is assumed to be competent for the work he is engaged to perform), by accepting his wages, accepts with them all risks of injury inseparable from the trade as then carried on. This principle having been confirmed by the House of Lords in the case of *Mrs. Wilson v. Merry and Cunliffe*, the *Miners' National Association* have, during the past two months, been exerting themselves to bring about a change in the law, so as practically to make the employer responsible for every accident which may occur in connection with his trade, regardless of any consideration as to whether such accident has occurred through neglect of his own, or from the negligence or incompetence of any workman authorised to give directions to a fellow-workman. That such a law would be most unjust and obstructive is beyond question, since it would make masters responsible for every order or direction given to a workman, whether with or without his direct sanction; would assume workmen to be entirely without skill and judgment in their trade, and would lead to endless litigation. In February last Mr. McDonald addressed a circular to the working classes of the United Kingdom, in which he says—

“For a considerable time past it has been considered that, legally, workmen injured were entitled to compensation from their employers, in the event of the death or injuries being caused by the neglect of the manager or director of the workmen. The recent decision in the House of Lords, in the case of *Mrs. Wilson v. Merry and Cunliffe*, completely dispels this idea. The decision is one that puts all working men in dangerous employments entirely at the mercy of reckless and ignorant managers, or those set apart to have care of the workers. The decision is one that will tell especially heavily upon all engaged in dangerous occupations. Feeling this, the *Miners' National Association* have drawn up a Bill, with the view of having it introduced into Parliament, immediately if possible, and copies of which they herewith send. The association trusts that, in the interest of humanity and justice, you will, as a body, or as individuals, give them all the aid you can in trying to have employers made responsible for all who may govern, order, or direct workmen in the performance of their labour for the benefit of said employers only. The destruction of life, by the neglect of such parties is a prolific source of the pauperism that now threatens to overwhelm this country, and sap the foundation of our social system. The executive of the *Miners' National Association* will be happy to receive any suggestions for the improvement of the proposed measure, which any of the organised bodies of workmen throughout the kingdom may deem of advantage toward the furtherance of the objects of the Bill.”

The subjoined is the draft of the bill which has been prepared:—

Whereas it is expedient to amend the rule of law by which workmen and servants are debarred from recovering damages from their masters for injuries suffered in certain cases; and whereas it is also expedient to extend the provisions of an Act passed in the ninth and tenth years of Her Majesty's reign, intitled “An Act for Compensating the Families of Persons Killed by Accidents,” to the families of workmen and servants killed in certain cases, as hereinafter provided. Be it, therefore, enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons in this present Parliament assembled, and by the authority of the same, as follows:—

I.—Whenever any workman or servant shall be injured by, or in consequence of, his master or employer neglecting to provide everything requisite to secure their safety when at their work, on the premises necessary to such work, such workman or servant shall be entitled to claim and recover in a Court of Law, damages for all such injuries. Further, whenever any master or employer shall appoint or sanction the appointment of a person or persons to direct, order, and govern any workman or servant in the performance of his or their work, and if through any neglect or wrong-doing on the part of the person or persons so appointed to direct the carrying on of the operations, any workman or servant under his or their orders should be injured, such workman or servant shall be entitled to claim and recover in a Court of Law damages from the master or employer as if said neglect or wrong-doing had been on the part of the master or employer himself; and in every case where the power so to direct, order, and govern is proved to have been given to such person or persons, the person or persons so empowered shall be held not to be a fellow-workman or fellow-servant of the workman or servant so injured, but be held as being the representative or representatives of the master or employer. Provided always that every such action shall be begun within 12 calendar months from the date of such injury or injuries being received.

II.—Whenever the death of any workman or servant shall be caused by a wrongful act, neglect, or default, which, if death had not ensued, would have entitled such workman or servant to recover damages under this Act, then and in every such case the person who would have been liable to an action for damages if death had not ensued shall be liable to an action for damages according to the provisions of the said recited Act.

III.—That this Act shall extend to Scotland and Ireland.

REPORT FROM SCOTLAND.

APRIL 14.—Buyers of Pig-Iron in this market on speculative account are alternately holding and realising, and are, consequently, moving prices up and down as they become purchasers or sellers. It is true that a pretty large business is passing in the article, and it is said that two or three of the best brands are over sold; still, the make is large, and speculation is ruling the market. Since the date of my last it has been nearly a close holiday, on account of periodical religious services; but, with the one or two open days in the interval, warrants have been done at 53s. and 53s. 1d. cash, and 53s. 1 1/2d. and 53s. 4 1/2d. a month, with shipments for the week reaching 12,930 tons, against 14,125 tons in the corresponding week of last year. The Mid-lesborough iron imported keeps decreasing week by week, till the decrease for the year till date is close on 10,000 tons. To-day, in a flat market, iron was pressed for sale at 53s. 1 1/2d. down to 52s. 7 1/2d. cash, and 53s. 4 1/2d. to 52s. 10 1/2d. a month, at which prices about 15,000 tons changed hands, closing sellers 52s. 9d. cash, and 53s. a month, buyers 1 1/2d. less. No. 1, g.m.b., 53s. 3d.; No. 3, 50s. 3d.; Gartsherrie, 60s.; Coltness, 60s. 6d.; Gleggarnock, 55s.; Langloan, 54s.—all No. 1. Manufactured iron is rather quieter for warehouse and shipment, although angle and plates are firm; and we understand the plates for the two new “*Cunarders*” have been this week taken at 3s. 6d. per ton over current rates, and will be of best iron. Bars, rods, and beam iron are meeting only with a limited enquiry, and there is a tendency to easier terms for these descriptions. As there are fully more iron sailing ships in course of construction on the Clyde than there are of steamers, marine castings are not in extensive demand; and while the large makers of pipes are fully employed, those on a smaller scale are scant of orders.

A very interesting paper was read on “The Jointing of Gas and Water Mains,” at the meeting of the Association of Engineers of Glasgow last week, by Mr. John Page, C.E. He alluded to the enormous waste of gas through leakage, and which was admitted by an engineer of 20 years' standing in his evidence before a Committee of the House of Commons during the last month to have amounted in his experience to 45 per cent. He further expressed his regret that gas engineers should persist in using pipes of an inferior description, in the face of such an immense loss as they admit exists, and hoped they would take a lesson from the more perfect system of the hydraulic engineers. Mr. Page concluded by noticing the difficulty in making and maintaining good joints under any circumstances, particularly in curved pipes, where masonry or expensive entire castings and tie-rods were absolutely necessary, and exhibited drawings of a very simple system of jointing, which recommended itself by its great economy, and showed to the members that a joint on a curved pipe made under the system then before them could not move, as a joint tested under the most unfavourable circumstances stood a pressure of 600 lbs. to the square inch.

A report, put in circulation by a contemporary, that the Monkland Iron and Steel Company were about to resume operations in a section of their works which had been disused for about five years, is incorrect as stated. The plant in the portion of the work which has been in operation during the stoppage of the other portion being used up, the trustees are about to resume operations in the closed portion, to prevent the necessity of renewing the plant worked up, and which will bring into use a large mill at present out of employment. This, we believe, is the whole of the extension which is taking place at these works, which is simply a transference, not an extension, in any proper sense of the term.

The nominal state of prices in the Coal Market makes it difficult to say anything about it. Whenever it is known that there is a demand for a few hundred tons a general scramble ensues, and prices are not allowed to transpire. Nominally they run from 5s. 3d. to 7s. 6d., f.o.b. at the Broomielaw. Shipments for the week are set down at 27,910 tons, against 30,415 tons; and the fine weather, and want of heart in the manufacturing community, are reducing the con-

sumption to a minimum. The colliers are rather quiet, and are submitting to reductions which bring their wages to 12s. or 15s. a week. A number of miners have sailed to America, a number more are preparing, some of whom are leaving their wives chargeable to the parish, and may never be heard of. This is a consideration which will require to be taken up by the proper authorities.

There are two Bills now before Parliament affecting the coal and iron masters of Scotland—the Parochial School (Scotland) Bill and the Road Bill. Into the claims of the Scotch coal and iron masters, on the first of these Bills, the Duke of Marlborough entered very fully on Monday night, when presenting their petition to the House of Lords. With regard to the Road Bill, as it contains provisions for taxing mineral royalties for the maintenance of the roads in the district in which the coal or ironstone pits are situated, although not a ton of these is conveyed otherwise than by rail, it is considered obnoxious, and must be seen by any legislator of intelligence to be a wrong. In reaching their destination, probably at Edinburgh or Glasgow, they have to be carted over the streets of these towns, but should collieries situated in Ayr or Lanarkshire be taxed to keep in repair the roads of towns or villages situated miles away? It is hoped both of these Bills will be so amended in Committee as to give satisfaction to the parties interested. We are sorry to report several failures in town this week, and the sequestration of an ironfounder, and a brassfounder and copper worker.

THE NORTH OF ENGLAND IRON AND COAL TRADES.

MIDDLESBOROUGH, APRIL 14.—The wages dispute in the Iron Trade is now in a fair way of being amicably and satisfactorily settled, at least for some time to come. Mr. Reuben Kettle, of Wolverhampton, the gentleman to whom was referred the arbitration of the question at the last meeting of the Board of Arbitration and Conciliation, visited this district on Monday, and after a meeting with the Standing Committee of the Board, and having the position of the matter in dispute laid before him, he fixed upon April 30 and May 1 to hear evidence on the merits of the question, so far as the different parties are concerned. The men ask for a general advance of wages equivalent to the amount of the last reduction, in 1867. In the main this will amount to 1s. per ton on puddling and 10 per cent. on millmen's wages, although particular cases, where the reduction made in 1867 was either more or less, will have to be specially dealt with.

The plans for the Middlesborough Dock have been fully prepared, and the work will, it is expected, be rapidly pushed forward in the course of the ensuing summer. The extensive alterations and improvements, involving an outlay of nearly 100,000l., will, of course, take a considerable time to complete; but their completion should greatly enhance the commercial importance of Middlesborough. Unfortunately, at the present time the shipping trade at this port is at a very low ebb. Mr. Williams (the energetic manager for Bolekew, Vaughan, and Co.), in moving at the Middlesborough Council meeting for a committee to consider the constitution of the Tees Conservancy Commission, and whether the interests of Middlesborough were adequately represented at that board, stated that the shipping trade was languishing very much, and the export trade in coal had almost disappeared. The Tees Commission was fixed by Act of Parliament in 1852, just about the time when the late Mr. Vaughan had begun to take the ironstone from the Cleveland hills, and the constitution of the Commission had not been altered since that time, although within a radius of six miles of Middlesborough was made nearly one-third of all the iron manufactured in Great Britain. Mr. Williams believes, and with good reason, that the more efficient representation of the port of Middlesborough at the board which has the management of the Tees in its hands must result in an improvement of the shipping trade.

The Pig-Iron Trade has been quiet during the week. The principal makers are well sold forward, and with the advent of fine weather shipments will be more numerous, especially to the Continent. At the Cleveland iron market, on Tuesday, there was about the usual attendance. The list quotations for pig-iron were—No. 1, 49s.; No. 3, 46s.; No. 4, 45s. 6d., net cash. Makers are not disposed to book orders, except at full current rates. There is a tolerably brisk local demand for forge iron; the rail-mills continue well employed, and makers confidently look for an advance on present prices as the summer advances. As it is, they have enough orders on their books to ensure steady work for some months to come. The foundries of the district are fairly employed, although there is little improvement in prices for general castings. The shipbuilding yards on the Tees and Wear are in much better employ than for a long time past, but they do not as yet find enough to occupy them full time. Plates are in good demand, but the bar-iron trade remains flat.

Coalowners continue to complain of the dulness of trade. There have, however, been indications of improvement of late. Not only have the collieries in Durham and Northumberland been better off for orders, and, as a consequence, had their men more fully employed, but several new collieries are shortly to be opened out. An agent is at present in the North, buying large supplies for the Admiralty. The continued improvement in the iron trade, and the erection of additional iron works, are also circumstances which cannot fail to affect for the better this branch of trade in the North.

TRADE OF THE TYNE AND WEAR.

GATESHEAD, APRIL 15.—A large number of vessels have entered and left the Tyne this week, and the prospect for the shipping trade is steadily improving, while the rates for Cronstadt are advancing. For Alexandria the demand continues good for coke freights, &c., and 10l. per keel can be had. A large import and export trade has been done at the Tyne Dock, the principal imports having been timber, Esparto grass, &c., and the most important exports have included a quantity of rails from Consett. The coal export trade has not been very brisk. A large number of foreign ships are in the Tyne Dock and other parts of the Tyne, and the general prospect for the trade is certainly looking much better. As ships of any burden can now have access to the river the trade of the Tyne must naturally increase. If the project entertained be carried out, of which there is little doubt—that is, the establishment of a line of swift steamers to trade between the Tyne and New York—a large trade may be expected both in chemicals, general merchandise, and passengers. On the Wear business has been somewhat dull; so very sensitive is the coal trade that the fine weather has already affected freights to the London market, and the demand having slackened has caused rates to recede. At Hartlepool there have been large arrivals and sailings, cargoes of coal being the exports mainly, indeed almost exclusively. The shipbuilding trade continues to be the most prosperous in the North; the gradual extinction of sailing vessels is going on, and the substitution of large screw vessels causes a good demand for new ships, and the maintenance of the fleets in course of formation must cause a good permanent demand for ship plates, and also ultimately a good demand for the northern steam coal. The Government agent has made his first purchase of this steam-coal, and a considerable improvement has taken place in the trade, and there is a much better prospect. At Blyth a good business has been done, 12 vessels having sailed during the last week with coal.

The strike at the Thornley Collieries has proved a very serious affair. At one time not only the underground men but all the brakesmen, firemen, &c., employed on surface were out, but those men wisely agreed to go in at the rates offered; they could not, indeed, get any better in the present state of the coal trade, and it would have been sheer folly to remain out under such circumstances. A number of men were brought up at Castle Eden, on Monday, charged with leaving their employment as miners at Thornley. It will scarcely be denied that the men have entered into an engagement to serve the owners for one year at the prices named in the bond or schedule, but it is also apparent that the real cause of the feeling which induced the strike is to be found in minor matters; in fact, the main cause is evidently the determination of Mr. Spencer, the head viewer, to enforce a particular clause in the bond relating to "laid out" coals, which had been suffered to fall into disuse, either partially or entirely. This question of "laid out" is always a sore one with miners, and great judgment is necessary on the part of managers in order to avoid a collision on the question. "Laid out" simply means a system of fines established for sending to bank mixed with the good coal stones,

foul coal, or slates. Of course, the meaning of a certain price per score, or per ton, is that only good coal shall be sent for such rates or prices, but, as this cannot literally be carried out to the letter a certain latitude is generally allowed, and the precise amount of margin to be allowed in this case is the real cause of dispute. It is rather probable that both parties have been somewhat hasty in the matter. A little calm consideration might have averted the injurious result which has taken place, and the very serious stoppage caused by a general strike, where such a large number of men are employed, and such extensive works carried on. At the conclusion of the proceedings, on Monday, Mr. Dixon, the solicitor for the men, stated that although no arrangement had been come to, if the Court were adjourned until Friday he had no doubt that an arrangement would be arrived at. Mr. Brignal, the solicitor for the owners of Thornley, fully agreed in this statement, and, after some admonitory remarks from the Chairman of the magistrates to the men, the Court adjourned until that day.—[We are glad to learn that, mutual concessions having been made, there is now every probability of a satisfactory termination of this difficulty being arrived at.]

At the Northern Institute of Mining Engineers meeting, the discussion of Mr. Nelson's paper "On the Mechanical Firing of Steam-Boilers," was resumed, in the course of which a very interesting account was given by Mr. Bunning of a series of experiments, lately conducted on board the steamer Weardale, to ascertain the economical value of Hartley steam coal, and also whether it can be used on board steamers without producing smoke. Those experiments conclusively demonstrated that this coal can be burnt without producing smoke, and the best results obtained even by hand-stoking. Mr. Bunning succeeded in this mainly by reducing the length of the fire-bars down as low as 3 feet 6 inches, and in some cases the bars have been reduced as low as 3 ft., and this in addition to a peculiar mode of firing, mainly consisting of putting the coals in large quantity on the front of the fire, where they are first roasted, and afterwards pushed forwards, completely succeeded in the object aimed at. The coal being practically smokeless, and producing steam very quickly, also as compared with any other coal extremely economical. Many other gentlemen took part in the discussion, and the admission of air at the front and upper part of the fire, and also at the back of the fire, was strongly advocated by some. The various kinds of furnaces for land boilers were also passed in review, and their cost, both first and of maintenance, was given, so that the whole discussion must prove very valuable. Among the numerous inventions applied for the purpose of preventing smoke and economising fuel—that is, for land boilers—Juckes's apparatus continues to keep its place. It is, perhaps, the most remarkable and useful yet applied, although the first cost is considerable. It is, of course, self-feeding, and has been tried, but not as yet extensively, on board ship. The discussion of Mr. Stevenson's paper "On Lemielle's Ventilator" was then proceeded with. The ventilator, which has been thoroughly tested by Mr. Stevenson, is erected at the Page Bank Colliery, where it has superseded the furnace. As it is a shaft of slight depth, the application of Lemielle's ventilator has reduced the cost of fuel to a very great extent, and nearly, if not quite, doubled the quantity of air in circulation. An ample supply of air is thus secured, as well as the power to increase the quantity on any future emergency arising. The success of the Lemielle ventilator, as compared with the furnace in pits of slight depth, is undoubted and decisive. As compared with the Guibal ventilator, the matter is not so clear. Interesting particulars were given of the working of the Lemielle ventilator at Washington Colliery, by Mr. Willis, and of the Guibal ventilator at Polton Colliery, by Mr. Morrison. The Lemielle, at Washington, appears to give even better results than the machine at Page Bank, but further particulars, the results of regular experiments, are to be given shortly by Mr. Willis. At the conclusion of the discussion the comparative merits of the two prominent machines just alluded to will, no doubt, be arrived at. At present it is clear that they are both admirably suited for the safe and efficient ventilation of collieries.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

APRIL 15.—No improvement can be reported in the state of the Iron Trade. Orders are chiefly of small amount, and partial employment is very general.

It was briefly stated last week that the enquiry before the Coroner as to the death of the man who lost his life by the flooding of the Nine Locks Colliery resulted in a verdict of "Accidental Death." The evidence adduced made it quite clear that the water had forced its way under the strong dam erected to keep it back in the adjoining Trough Pit. The coal in this latter pit had ignited, and the water was dammed up, it seemed, with a view to put out the fire, but this object had not been secured. The dam was of great strength, and had not, in fact, given way, the water getting underneath it by the softening of the strata. Mr. Baker, the Government Inspector, stated that the main pipe which allowed the water to flow through this dam was 4 in. in diameter, and the tap was of 10 in. area, and 18 in. above the water in the level. There was 1½-in. gas-pipe, with a small tap within 6 in. of the top of the dam. According to the evidence of Plant, one of the chartermasters, and Thompson, one of the doggies, both these taps were kept open constantly, and they never knew water to flow out of the upper pipe. Mr. Baker said that he estimated the water which had flowed into the mine at 622,784 cubic feet, which would cover 4½ acres of ground 1 yard deep. The water reached a maximum height in the Nine Locks Pit of 43 ft. above the main top of the dam. The flow of water in the main gate-roads extended to 243 and 140 yards, respectively, from the shaft. According to the engineer, the average quantity of water into the Trough Pit would not be more than 50 gallons per minute, and, therefore, the taps in the dam would be ample for the passage of the water; in fact, a pipe 2 or 3 in. in diameter, with a few inches head of water, would pass that quantity easily. The daily accumulation of that quantity would take about eight weeks to reach the amount of the flood. As it was impossible to enter the Trough Pit, owing to the coal being on fire, and adopting the evidence that the taps had been kept open, it was still unknown whence the water came. Mr. Baker, however, was not satisfied on this point, and expressed his disapproval of a sealed dam like this in the water-way, as involving danger. Mr. John Yardley, however, and Mr. David Peacock, both mining engineers of great experience, especially the first, entirely approved of the erection of the dam, and were of opinion that there had been a sudden flow of water from higher hollows, and that the flood was not caused by the accumulation of water in the Trough Pit.

In connection with this accident, it may be remarked that a writer in a contemporary stated last week that the rescue of the miners cost Lord Dudley 25,000l.! This is a large amount to spend in a week in working pumps, &c. No doubt everything was done that could be, but 250l. would be probably an outside figure.

The question of the drainage of the Tipton basin remains as yet undetermined, so far as any permanent arrangements go. It is a pity there is no power to carry on drainage works, and assess the cost on the coal raised in the area benefited. No doubt there would be difficulty, but difficulties may be overcome, and whilst a perfectly fair assessment is not possible, a rough approximation would be fairer than for a number of people to have the advantage without payment, and far less onerous than for the mines to be flooded, the end of which it is hard to estimate.

Mr. Rupert Kettle has consented to arbitrate on the question of wages in the North of England Iron Trade, and also in a dispute between masters and men in the building trades of Manchester. Every body wishes success to these attempts, to avoid riotous contests.

John Thomas, 22 years of age, who was employed in "coggling" in a stall at the Moat Colliery, Tipton, lost his life by an explosion of gas on the 3d inst. A man serving him saved himself by dropping on the floor. At an inquest on Tuesday, Mr. Baker, the Mines Inspector, brought out that whilst there was plenty of air passing through the workings, there was an opening, or as it is called, a "pot hole," over the stall in question, in which gas from time to time formed, and from which, no doubt, the accident occurred. Mr. Baker insisted that such places should be ventilated, but the chartermaster said it was impossible. It turned out that the doggy, in examining the pit, went down with a naked candle, and the chartermaster said he should dismiss him. The usual verdict was returned, but Mr. Baker said that

there having been another death in that colliery from a similar cause, he should bring it before the notice of the directors of the company.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

APRIL 15.—There is very little alteration in the state of the Coal and Iron Trades of Derbyshire. A much larger tonnage of house coal is now being forwarded to London than since the commencement of the year, and the returns of the Clay Cross Company in particular show that the tonnage going from there has greatly increased during the past three or four weeks. The Midland Railway, now disencumbered from the London and North-Western, and with a clear course to London, is rapidly assuming the lead of all the companies going into the metropolis with minerals. In South Yorkshire the miners are still in a high state of fermentation, and matters are fast assuming an aspect which cannot but lead to a serious breach of the peace. At Denaby the men who are out do all they can to annoy those who are at work, and, as might be expected, a rather serious collision took place at the Sparrow barracks, where a number of the men recently engaged are located. A number of windows were smashed, and the police were ineffectual to stop the work of destruction. Mr. Pope, the managing partner, states that on no account can he recognise the men who were lately in the service of the company as having any claim whatever on him. At Thornecliffe and Chapel-town the pits are all but closed, and Messrs. Newton, Chambers, and Co. have expressed their determination not to give way, and that those who seek for employment must apply individually, as the firm will not be dictated by any body of men. Nearly 1000 men at those collieries are out, and altogether there are now 1600 men receiving pay from the Union, at a cost of nearly 1600l. per week.

At the inquest upon the sufferers by the explosion at the High Brooks Colliery, Ashton-in-Makerfield, nothing important has been elicited, although both Mr. Higson, the Government Inspector, and Mr. Pickard, the miners' agent, have used every exertion to bring out the facts. It is the opinion of James Whittle, the head fireman, that there was no explosion of fire-damp, the calamity being due to an explosion of several cans of gunpowder (12 lbs. or 14 lbs. in all), which were ignited by the blowing out of a shot which inflamed the coal dust. This view is confirmed by some witnesses, and denied by others.

Mr. WILLIAM SAUNDERS, who has been for upwards of 22 years the confidential assistant of Mr. J. T. Woodhouse, C.E. and M.E., of Derby, has commenced business in Derby on his own account, and is prepared to undertake any of the business usually performed by an actuary, accountant, land and estate agent, auctioneer or valuer, or commission and general agent. Those who have had dealings with Mr. Saunders, as the representative of Mr. Woodhouse, will need no assurance that any business entrusted to him will be promptly and thoroughly attended to, whilst to others it will suffice to know that it is at Mr. Woodhouse's suggestion that he has commenced business for himself, and that he is permitted to use Mr. Woodhouse's name whenever reference is required.

REPORT FROM MONMOUTH AND SOUTH WALES.

APRIL 15.—The rail mills during the quarter just ended have been kept pretty regularly working, and the prospects of this important branch of the trade are now as good as they were at the commencement of the year. At the close of last year there was a considerable increase in the demand, which has afforded employment to the French, Belgian, and Prussian works for some time, and this will deter them from competing with the makers in this and other districts for the heavy contracts for rails for Russia and the United States about to be given out. The Quarterly Meeting of Ironmasters passed off in what was considered a satisfactory manner, and there is every probability of better prices being obtained before the expiration of the present quarter. The trade during the past week has assumed something like its vitality previous to the Quarterly Meeting, and strong hopes are entertained of its continuing to manifest the same liveliness for some months to come. A large amount of business continues to be transacted with American buyers, and last month no less than 26,783 tons were sent to the American markets, of which New York alone took 15,363 tons, and should the weather continue favourable, and no scarcity of ships arise, the exports during the present month will, probably, be much larger, as some thousands of tons are now awaiting shipment at the local ports. Russian advices continue favourable as to future requirements, and the exports to the Muscovite empire this season, early as it is, already amount to nearly 5000 tons, and several vessels and steamers are this week expected to arrive at the local ports to load iron for the Russian markets. There is an increase in enquiries from India, and an addition to the demand from that part of the British empire is now looked forward to before many weeks have elapsed. The continental demand has also improved, and as there appears to be in several of the European countries a general awakening as to the importance of railway communication, the quantity of iron that will be required to carry out the contemplated extensions of the railway systems will be something prodigious; and, as the foreign houses are full of engagements, it is quite evident the great bulk will have to be supplied by makers in this and other districts in the United Kingdom. The pig-iron trade is more active than it has been for several weeks past, and prices are much firmer. Tin-plates sell steadily at the advanced prices determined upon at the Quarterly Meeting, and there is a prospect of a further rise.

The Steam Coal Trade has somewhat improved, the demand from some of the foreign markets having somewhat increased. The exports, on the whole, were last month above the average, and it is very probable if merchants and shippers had experienced no difficulty in obtaining vessels of suitable tonnage for the more distant ports there would have been a much larger increase. Trade with South America has somewhat increased, and the shipments to the mail packet stations are larger than they have been for some weeks past. Large quantities continue to be sent to the French markets, and, as has been the case for three or four months past, French buyers continue the best customers for South Wales steam coal. The improvement which lately set in in the house coal trade has been somewhat checked by the hot weather, and at several of the collieries the hands are not employed more than half-time.

The enquiry into the death of William Lewis, who was killed by an explosion of gas in the Stable Pit, at Nant-y-Glo, belonging to Messrs. J. and C. Bailey, has been brought to a close. Mr. Lionel Brough informed Mr. Brewer, the Coroner, and the jury that the ventilation was good, at the same time a little gas was there, which by a little care could be taken away. He thought the men ought to be sent up the pit, and not allowed to stay about the heading when gas accumulated, as was the case while the door was put up. He censured the parties for using naked candles instead of safety-lamps while the operation took place. The jury returned a verdict of "Accidental Death," censuring the parties for the bungling way of putting the door up while the men were in the pit, and also for not using safety-lamps.

Considerable surprise was caused in the district on Monday by the announcement of the suspension of Messrs. Hallam and Madge, tin-plate manufacturers, Morriston, Swansea. The amount of the liabilities is not yet authoritatively announced, but it is expected they will reach from 70,000l. to 80,000l. The firm has for many years held a high position in the tin-plate trade, and they have carried on large and extensive works at Morriston, and should operations at the works be suspended a large number of workmen will be thrown out of employment. Keen competition in the tin-plate trade, consequent upon the rapid extinction of new works, is said to be the chief cause of the suspension. The Glamorganshire Banking Company are creditors for a considerable amount, but it is said they are fully secured.

Messrs. John Parry and Richard Morris, of the Cambrian Slate Works, Llanberis, North Wales, have obtained a patent for an invention of "improvements in saws for cutting slate, stone, iron, or other metals or material." The arrivals at Swansea include—the Iris, from Frederickston, with a cargo of timber for M. Moxham and Co.; Mary Jane, from Bilbao, with 210 tons of iron ore, for W. H. Thomas and Co.; Lynwood, from Bilbao, with 378 tons of iron ore, for W. H. Thomas and Co.; Acacia, from Huelsa, with 316 tons of pyrites to order; Mary Ann, from St. Malo, with 100 tons of zinc ore, for Dillwyn and Co.; Nimble, from Carlotofre, with 519 tons of zinc ore, for H. Bath and Son; Victoria, from Ronen, with 104 tons of plaster of Paris, for Philip Rogers; Maria Lamb, from Bilbao, with 318 tons of iron ore, for W. H. Tucker; Ann and Mary, from Marselles, with 225 tons of copper ore, for W. H. Thomas and Co.; Trois Sours, from Santander, with 166 tons of iron ore to order; Louis Ann, from Lisbon, with 165 tons of phosphate to order; Elenne Leouidas, from Santander, with 168 tons of iron ore, for Richards and Power; Liberté, from Bilbao, with 180 tons of iron ore to order; Roundshot, from Aviero, with 210 tons of copper ore, for Richardson and Co.; Earl of Shaftesbury, from Malpas, with 454 boxes, for H. Bath and Son; Rose de Mal, from Bilbao, with 100 tons of iron ore, for W. H. Thomas and Co.; Vigilante, from Santander, with 145 tons of iron ore to order.

MINING IN THE FOREST OF DEAN.—Messrs. FULLER, HORSEY, SON, and Co., submitted for sale by public auction, at the Mart, on

April 7, the Bailey Hill Level Collieries and Brick Works, with the fixed machinery and valuable patent right for the manufacture of an improved emery-powder, for the production of which there is an almost inexhaustible deposit of clay on the property, and all the necessary machinery to keep the market supplied at a considerably lower cost than that of foreign emery, which it fully equals, if not exceeds. The collieries are easily and economically worked, the coal hard and of a good quality, roof good, no fire-damp, and railway communication by means of the Severn and Wye Railway, to the South Wales Railway, or to the shipping port at Lydney. The brick and tile works are held under the Crown, at a very moderate royalty, are in full work, and contracts can at once be taken for large quantities of bricks. No bid being made, the properties were withdrawn.

FUEL.—Certain improvements in the manufacture of artificial fuel have been patented by Mr. W. H. CRISPIN, of Stratford, Essex, the invention being applicable to the treatment of anthracite, as well as bituminous coal of any description, and also to any combination of anthracite and bituminous coal. The fuel is formed by taking about one ton of coal in a pulverised state and adding thereto about 6 or 7 per cent. by weight of stearine pitch, cotton-seed oil pitch, or other analogous vegetable pitch, the same having been previously dissolved in about an equal weight of creosote, or "dead" or "heavy" oil resulting from the distillation of coal tar, or in any hydrocarbon fluid or fluids possessing similar solvent powers. The coal and pitch having been thus combined, about 3 per cent. by weight of lime and 3 per cent. of chloride of sodium (common salt) are added. By preference, however, the coal, lime, and salt are mixed together in a dry state, and then the dissolved pitch is added. In some cases it will be found that the quality of the fuel is improved by adding thereto a small quantity of common salt in the state of brine just before the introduction of the dissolved pitch. These proportions must be considered as approximate only, as they may be in some degree varied according to the nature of the coal employed and the character which it is desired the fuel shall possess. The materials thus combined as before mentioned are submitted to the requisite pressure, and divided into blocks of the desired size, by means of any machinery or appliances adapted to the purpose. An important advantage claimed for the artificial fuel manufactured in accordance with this invention is that the pitch and the hydrocarbon fluid or fluids in which it has been dissolved not only agglomerate and cause cohesion between the particles of coal with which they are combined, but also from their combustible nature greatly increase the heating qualities of the resulting fuel.

ROCK-BORING MACHINES.—Amongst the many subjects which for the last few years have attracted the attention of engineers, and the mining public generally, has been that involving the question of the application of machinery for superseding manual labour in the underground exploratory works of mining. The fact of its practicability has, it is considered, been fully proved, but the question how far such machinery can be made use of economically, with commercially profitable results, is one on which with the insufficient data hitherto furnished an opinion cannot be given. That it is one of those questions which may naturally be expected to be some day satisfactorily solved is not doubted. For such has been the engineering acumen and amount of capital already devoted to it, that the general principles upon which such a machine should be constructed are regarded as tolerably well settled. Details, therefore, should occupy the present attention of engineers. And here, as might be expected, in the usual course of things, the enterprising pioneers of this work, in themselves learning what the necessities of the case would require, and the best mode of meeting these wants, must simultaneously excite and draw the minds of those to the subject who, either from natural inclinations, the force of circumstances, or the combination of both causes, are induced to enter the lists, with the hope that whilst they may establish and increase their professional reputation, they may also reap some of the more solid advantages, which would be insured by a ready appreciation by the public of a thorough good rock boring-machine. Mr. HENRY BRENTON, a mining engineer, after having some six years' practical experience with these machines, has designed one which he considers will fully answer all the desired purposes; and in an advertisement in this day's Journal he expresses his willingness to entertain proposals which, without risk to the capitalist, will give him an opportunity of realising handsome profits for a comparatively small amount to be invested.

SOCIETY OF ENGINEERS.—On Monday evening the paper read by Mr. F. W. Hartley, on "The Methods Employed in the Determination of the Commercial Value and Purity of Coal Gas," will be for discussion.

VELOCEPÉDES.—At a meeting of the Inventors' Institute, held at St. Martin's-place, Trafalgar-square, on Thursday evening (Mr. H. C. Coulthard, C.E., in the chair), a paper on Velocipedes was read, by Mr. C. B. King, C.E. The paper embraced a history of the several inventions which had from time to time been brought forward for road locomotion, by the application of the power of the human body; but the mechanical and engineering view of the question was not touched upon. He commenced by referring to the increasing public interest in the velocipede movement in England, as well as in America and France; and having given to Napoleon the credit of the invention of the bicycle half a century ago, he mentioned the names of various improvements down to the present time. One of the machines weighed half a ton, and would carry twelve persons; in another the break, one of the most valuable features of the modern velocipede, was introduced. In order to bring them into general use, he thought manufacturers should pay attention to springs, proportion, and finish. The exercise might be called walking made easy, with the advantage of taking ten feet at a stride in place of two. He attached no importance to the supposed danger to pedestrians, inasmuch as, with ordinary skill, a velocipedist can stop more suddenly than he could pull up a horse. In the discussion which followed the reading of the paper very conflicting statements were made, the only conclusion to be drawn from which was that expert velocipedists can maintain on the bicycle a speed of nearly seven miles per hour for some hours. As to the comfort and advantage of riding the velocipede on any but perfectly smooth roads, and as to the practicability of ascending hills, except by pulling or pushing the velocipede, the manufacturers, several of whom were present, were not at all unanimous. As the rope by which Blondin crossed the Niagara was probably the cheapest form of bridge of equal strength, span, and altitude ever constructed, so the velocipede, if the opinion of certain enthusiastic velocipedists be adopted, is a form of vehicle by which the traveller may annihilate time and space, and perform an amount of work which proves that all accepted principles of mechanical science are absurd. The sole drawbacks are that it requires proof that the foot-bridge mentioned can be used by ordinary passengers, and that the velocipede gives any increased power of locomotion without corresponding increase of exhaustion. It was suggested that inventors should endeavour to provide velocipedes suitable for ladies and children, as well as cheaper vehicles on which working men could go to their employment, as some do in Paris. It was stated, however, that velocipedes are not fitted for London streets, and regret was expressed at their exclusion from the parks. Mr. Velocipede said he had done the 90 miles between Paris and Rouen on a bicycle in one day. A mile had been done on a good road in two minutes and four seconds, but the keeping up of so high a rate of speed was altogether exceptional.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending April 11 was 10,351l. 17s. 10d.

STAFFORDSHIRE WHEEL AND AXLE COMPANY (LIMITED).
MANUFACTURERS OF RAILWAY CARRIAGE, WAGON, AND CONTRACTORS' WHEELS AND AXLES, and other IRONWORK used in the CONSTRUCTION OF RAILWAY ROLLING STOCK.
OFFICES AND WORKS,
HEATH STREET SOUTH, SPRING HILL, BIRMINGHAM.
LONDON OFFICE, 118, CANNON STREET, E.C.

RAILWAY CARRIAGE COMPANY (LIMITED)
ESTABLISHED 1847.
OLDBURY WORKS, NEAR BIRMINGHAM.
MANUFACTURERS OF RAILWAY CARRIAGES AND WAGONS, and EVERY DESCRIPTION OF IRONWORK.
Passenger carriages and wagons built, either for cash or for payment over a period of years.
RAILWAY WAGONS FOR HIRE.
CHIEF OFFICES, OLDBURY WORKS, NEAR BIRMINGHAM.
LONDON OFFICES, 6, STOREY'S GATE, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED)
MANUFACTURE RAILWAY WAGONS OF EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.
EDMUND FOWLER, Sec.

WAGON WORKS, SMETHWICK, BIRMINGHAM.
Loans received on Debenture; particulars on application.

WILLIAMS'S PERRAN FOUNDRY COMPANY,
PERRANWORTH, CORNWALL.
MANUFACTURERS OF STEAM PUMPING and EVERY OTHER KIND OF ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS of every description, of the very best quality. Estimates given for the supply of any amount of machinery.
London Agents, Mr. EDWARD COOKE, 70, Old Broad-street, London, E.C.

COLCHARTON MINE, NEAR TAVISTOCK.

MESSESS. WARD AND CHOWEN (Auctioneers) beg to announce that the SALE of the MATERIALS, &c., on the COLCHARTON MINE, advertised in the MINING JOURNAL of April 10 for Wednesday next, WILL NOT TAKE PLACE.
Dated Uppaton, Milton Abbot, Devon, April 10, 1869.

VALUABLE MINE SHARES FOR SALE.

MR. JOHN PERMEWAN WILL SELL, BY AUCTION, at the Western Hotel, Penzance, on Thursday, the 22d day of April inst., at Three o'clock in the afternoon (subject to conditions to be then produced), EIGHT (1-80th) SHARES of all that most valuable and productive TIN MINE, called

WHEAL OWLES,

Situate in the parish of ST. JUST, near PENZANCE, CORNWALL, now in full and vigorous working, with substantial buildings, and machinery of the most effective kind.

The Mine is in all respects in excellent order, having been carried on for very many years under able and judicious management.
Profits have been made to the amount of nearly £30,000, and a dividend of Fifty Guineas per 80th share was declared on the 19th of February last; and, with the present position and hopeful prospects of the tin market, the large quantity of reserves on the Mine, and the extensive district of tin ground already opened and in view, no doubt large dividends will be paid for a considerable time.

For property is offered for sale in consequence of being trust estate, and each share will form a separate lot; and to persons of capital, desiring a legitimate and permanent mining investment, the present sale offers a most inviting opportunity.

Further particulars will be kindly furnished by Mr. RICHARD BOYNS, the Parser, at the Mine; or may be obtained on application at the offices of Mr. TRYTHALL, Solicitor, Penzance.—Dated April 7, 1869.

MINING SHARES.

MR. BRANCH WILL SELL, BY AUCTION, on Monday, the 19th day of May next, at Four for half-past Four o'clock in the afternoon precisely, at the Queen Railway Hotel, Chester, in such Lot or Lots as shall then be determined on, pursuant to an Order of the Court of Chancery of the County Palatine of Lancaster, TWO HUNDRED AND THIRTY-EIGHT SHARES in the WELL-KNOWN and OLD-ESTABLISHED MINING COMPANY called

THE TALARGOCH MINING COMPANY (LIMITED).

This company's mine is situate at Dyserth, near Rhyl.
The company is a very flourishing concern, and has for many years paid very large dividends.

For further particulars apply to the secretary of the company, Mr. WILLIAM SMITH, Dyserth, near Rhyl; to Messrs. PALGRAVE, REYNOLDS, and LYON, solicitors, 3, Lord-street, Liverpool; or to Messrs. SIMPSON and NORTH, solicitors, 1, Rumbold-street, Liverpool.

PAR CONSOLS MINE.

FOR SALE, BY PRIVATE CONTRACT, at PAR CONSOLS MINE:—

ONE 80 in. cylinder PUMPING ENGINE, with THREE BOILERS, and balance bob, &c., complete.
ONE 72 in. cylinder PUMPING ENGINE (Bull), with TWO BOILERS, &c.
ONE 24 in. cylinder WINDING ENGINE, with BOILER, cage, &c.
ONE 26 in. ditto ditto, with TWO BOILERS, &c.
ONE 24 in. ditto ditto, with BOILER, cage, and steam cap.

ONE 20 in. ditto ditto, with horizontal BOILERS, &c.
ONE 30 in. ditto ditto, with CRUSHER attached.
ONE 18 in. ditto ditto.
ONE 36 in. and 22 in. cylinder combined STAMPS ENGINE, with THREE BOILERS, iron axes, for 55 leads stamps, five tappets to the round.

TWO 14 ft. CALINERS.
A large quantity of first-rate pumps, from 6 in. to 20 in., with windroves, matchings, H pieces, &c.; 14 pulley poles, from 7 in. to 20 in., with stuffing boxes and glands to fit; hammered and common iron rod plates, rod pins, staples and glands, rail iron and saddles, a quantity of pitch pine and other main rods (from 10 in. to 15 in.); 2 capstans and three shears, capstan rope, chains, and a variety of other articles; several wood sheds, tin racks, &c.

For viewing the same, apply to the agents.
Further particulars may be had of Mr. WM. POLKINGHORNE, the parser, or of WM. WEST, Esq., C.E., Trevelyan House, St. Blazey.

Par Consols Mine, Par Station, Cornwall.

RARE OPPORTUNITY FOR INVESTMENT IN CORNISH MINING.

TO BE SOLD, BY PRIVATE CONTRACT, to a party or company who will work the Mine efficiently, the WHOLE of the PLANT, MACHINERY, &c., on

CARN GALVER MINE.

Situate in the parishes of MORVAH and ZENNOR, and referred to in the Government Survey Map as the Zennor and Morvah Mines, and which may be set to work in a very few days, and at a very small cost.

The falling health of the lessee, parser, manager, and principal shareholder is the sole reason for selling.
The PLANT on the Mine consist of a superior 30 in. double-acting STEAM-ENGINE, with two bobs, for pumping and drawing, of ample power for considerably increased development of the Mine; 130 fms. skip road; two east-side skips; 150 fms. chain; tram wagons, tram road, with the necessary pitwork, &c.
The principal shaft is 130 fms., and there is a deep adit of 70 fms. from the surface, which makes the water charges very light.

There is also on the Mine an account-house, and offices of nine rooms, stable, and carriage shed, smithy, and other convenient outbuildings.
On the site there are likewise powerful water stamps of 24 heads, burning-house, Borslase's patent buddles, frames, &c., capable of dressing a considerable quantity of tin.

For terms, and further particulars, apply to Mr. JOHN COULSON, Parser and Manager, 38, Chapel-street, Penzance.

ENDON (OR HENDON) MINING COMPANY (LIMITED).

ENDON MINING GROUND is situated in the parish of EDMONDBYERS, in the county of DURHAM. The company which is engaged in this undertaking is desirous of INCREASING ITS CAPITAL beyond the £1000 already invested, being confident that they will find good and profitable Mines. They wish, therefore, to DISPOSE OF A LIMITED NUMBER OF SHARES, as the present shareholders are unable to work the Mine to advantage. TWO GOOD VEINS are cut in the top beds,—one the well-known Middlehope vein; the other one of the White Heaps veins; whilst several other good veins traverse this plot of mining ground.

Reference can be made to Mr. JOHN ROBINSON, M.E., Bushy Flat, Stanhope, who is assistant to E. F. BOYD, Esq. (Mining Engineer to the Dean and Chapter of Durham). Both gentlemen are well known in the county of Durham for their competence and honesty.
Consent, March 31, 1869.

JOHN ROBINSON.

VALUABLE GRANITE QUARRY IN EAST CORNWALL.

TO BE SOLD, BY PRIVATE CONTRACT, THE LEASE of a QUARRY, producing some of the finest quality granite in the county; together with the valuable PLANT, MACHINERY, &c., thereto belonging, and the COTTAGES erected on the site.

The property is situate in close proximity to the celebrated Cheesewring; is held under long lease on favorable terms; and possesses unusual facilities for producing blocks of the largest size and finest grain, in almost unlimited quantity. The stone, being of superior character, is readily marketable, and has been extensively used in some of the principal National undertakings.

A large sum has been expended in developing the resources of the quarry, from which immediate remunerative returns may be obtained.

For viewing the above, apply to the Foreman, at the West Cheesewring Granite Works; and for further particulars, at the offices of Mr. TREGO, Morning News Chambers, George-street, Plymouth.

A FESTINING SLATE QUARRY ON SALE.

THE BWLCH-Y-SLATER SLATE QUARRY, situated in the parish of FESTINING, and in the centre of that well-known slate district, is NOW ON SALE, BY PRIVATE TREATY, owing to the death of the late proprietor.

The quarry produces slates of first-class quality, of which there is apparently an inexhaustible supply. It is provided with the requisite plant for being properly and profitably worked, and has already been worked to a profit, and is parted with solely owing to the death of the proprietor. It is situated close to the Portmadoc and Festinog Railway.

For particulars, apply to Mrs. WILLIAMS, Bannafawr, Dyffryn, Carnarvon.

NORTH WALES.

GREEN AND BLUE SLATE QUARRY.—THE WHOLE or ONE HALF of one of the FINEST QUARRIES in WALES FOR SALE. Within 150 yards of a railway station, on a main line of railway, and within 1½ mile of a shipping port, accessible by the same line.
For price and particulars apply to Mr. THOMAS HARVEY, St. Clement's House, St. Clement's-lane, London.
March 20, 1869.

FOR SALE, THE UNDERMENTIONED ENGINES AND WATER WHEELS:—

ONE 60 in. cylinder ENGINE, 10 ft. stroke in cylinder, and 9 ft. in shaft; with TWO CORNISH BOILERS, 10 tons each.
ONE 50 in. cylinder PUMPING ENGINE, 9½ ft. stroke, equal beam; with TWO CORNISH BOILERS.

ONE 50 in. cylinder PUMPING ENGINE; with ONE BOILER.
ONE 33 in. cylinder (beam) double-acting ENGINE, with pumping gear attached, 6 ft. stroke; with ONE 10 ton BOILER.

ONE 25 in. cylinder (beam) double-acting ENGINE, 6 ft. stroke; with ONE 10 ton BOILER.
ONE 12 in. cylinder rotary STEAM ENGINE, with ONE 6 ton BOILER.

The whole of the above engines are in excellent condition, some being nearly new.

WATER WHEELS.

ONE WATER WHEEL, 40 ft. diameter, and 8 ft. abrest.
ONE ditto 60 ft. ditto 3½ ft. abrest.
ONE ditto 80 ft. ditto 3½ ft. abrest.

The above wheels have cast-iron rings, sockets, and axles.

Also, several CORNISH CRUSHERS, of various sizes.

For further information respecting the above machinery, apply to W. MATHEWS, Engineer, Tavistock.

Tavistock, April 1, 1869.

GLAMORGANSHIRE.

SALE OF VALUABLE COLLIERIES, situate in the parishes of LLANWONNO GILLYGARE, and LLANTRISSANT, in the county of GLAMORGAN, known as

THE DARRANDU, TROEDYRHIFWUCH, AND CYMMER COLLIERIES.

MESSESS. DENNING, SMITH, AND CO. WILL SELL, BY AUCTION, at the Royal Hotel, Cardiff, on Tuesday, the 27th day of April, at One for Two o'clock precisely (unless previously disposed of by private contract, of which due notice will be given), the above-mentioned

VALUABLE MINERAL PROPERTIES,

In the following or such other lots as may be agreed upon at the time of sale.
Lot 1.—All that COLLIERY, known by the name of the NEW DARRANDU, situate in the parish of LLANWONNO, in the county of GLAMORGAN, extending over an area of upwards of 350 acres, and held as follows:—

78a. or 13p. under Pwll Howell Farm, are held under an Indenture of Lease, dated 8th June, 1863, for a term of ten years which can be extended to another five years.

122a. 1r. 17p. under Pennywall Farm, are held under an Indenture of Lease, dated 12th July, 1855, for the term of 21 years, from 1st January, 1861.

The remainder—viz., 150a. 1r. 17p. under Blaenhenywyse Farm—is held under an Indenture of Lease, dated 12th September, 1865, for a term of 20 years, from 1st January, 1865.

This property forms the outlet for a further area of unleased mineral property containing the Darranddu seam of coal.

The coal is very hard, and is especially adapted for locomotive and house purposes, and it commands at all times a ready sale; in fact, it is the only colliery that can now work the celebrated Darranddu vein.

The area of coal unworked is 220 acres, or thereabouts.

The New Darranddu Colliery is worked by a drift, and at present is equal to an output of 4000 tons per month.

The drift is worked by a powerful engine, nearly new; the plant and machinery are in good working order.

The coal is conveyed to the siding on the Taft Vale Railway over a self-acting incline, and the colliery is in direct railway communication with the shipping port of Cardiff, from which it is distant 14 miles.

Lot 2.—All that COLLIERY, known as the CYMMER LEVEL COLLIERY, situate in the parish of LLANTRISSANT, in the county of GLAMORGAN, comprising an area of 155 acres of the Rhondda No. 2 seam, held under lease for a term of 21 years from July 1st, 1858.

This colliery is worked by means of a shaft, but the unworked coal can be obtained by means of a level, at a small outlay. It is in direct railway communication with Cardiff, from which it is distant 16 miles.

The coal is well known as a superior coal for smelting and puddling iron, and for general manufacturing purposes; it is also a good house coal.

The area of unworked coal is 80 acres, or thereabouts.

The present openings will admit of an output of 150 tons per day, the present get averaging more than 100 tons per day.

Also, at the same time and place, will be sold about 6000 tons of COKE, in stock at the colliery, belonging to the same proprietors.

There are 36 coke ovens, now rented by the lessees, within a few yards of the colliery, for converting the small coal into coke, which can be rented by the purchaser of this colliery.

Lot 3.—All that COLLIERY, known as the TROEDYRHIFWUCH, situate in the parish of GILLYGARE, in the county of GLAMORGAN, containing the Brithdir seam and a seam below, extending over an area of 100 acres, or thereabouts, held under a lease for a term of 99 years, from 6th October, 1859.

This colliery is worked by a level, and adjoins the Rhymney Railway, and is in direct railway communication with the shipping ports of Cardiff and Newport. It is distant 22 miles from Cardiff, and 16 from Newport.

The present proprietors are now working the Brithdir vein, of which about 20 acres or thereabouts remain unworked.

The colliery is producing at the rate of 1500 tons per month, and the workings are sufficiently opened to admit of an output of 2500 tons per month.

The coal is particularly well adapted for smelting and puddling iron, &c.; it is also a superior coking and gas coal, and may be worked at a very low cost.

All the above-mentioned collieries have good roofs, and very little timber is required in working them. They are free from gas, and well ventilated.

The plant comprises engines, trams, weighing machines, and all the usual and necessary appliances, including horses' stables, smith's shops, &c.

The collieries and plans can be inspected on applying to the manager, Mr. BEACHAM, Oakfield-villa, Pontypridd, Glamorganshire.

The leases can be seen at the offices of the solicitors, Messrs. FUSSELL and PRICHARD, Bristol, of whom all further particulars may be obtained; or of Messrs. DENNING, SMITH, and Co., Shannon-court, Bristol, and Commercial-street, Newport, Monmouthshire.

FOREST OF DEAN, GLOUCESTERSHIRE.

HIGHLY IMPORTANT AND VERY VALUABLE IRON MINE.

MESSESS. DENNING, SMITH, AND CO. WILL SELL, BY AUCTION, at the Hen and Chickens, Birmingham, on Thursday, the 13th day of May, 1869, at One for Two o'clock P.M. precisely, all that valuable FREEHOLD PROPERTY known as the

MAXWELL AND BROOKLYN IRON MINE,

SITUATE IN THE FOREST OF DEAN,

In the county of GLOUCESTER.

This extensive mineral property, comprising an area of about 414 acres, is situated on the western outcrop of the Forest of Dean Mines, at a point about one-and-a-half mile from the town of Coleford, the strata containing an abundant supply of good brown hematite ore, and of the veins usually worked in the district, as evidenced by the produce of the adjoining property on the land side—viz., the well-known "Easter Mine," which is now in full work, and raising large quantities of excellent hematite, the deepest workings indicating the sure existence of a good state of ore on the deep side.

The pit in the Easter Mine is 115 yards deep, and the cavities or churns in which the deposit of ore is found are unusually large, the average yield being 11,000 tons per acre.

The royalty reserved to the Crown by a perpetual grant under which (No. 1632 under the Act 1 and 2 Vic. c. 43, sec. 57) the mine is held, is the nominal one of 4d. a ton, with a dead rent of £20 per annum.

The property is bounded on the west by the Easter Iron Mine, on the south by the Bromley Hill Iron Mine, and on the north by the Atlas Iron Mine. The inclination or dip of the iron ore is about 1 in 6 from west to east, the level line being from north to south. The thickness of the vein averages about 12 yards.

The property also includes the Sandstone Iron Mine, which has not yet been developed in the Dean Forest.

From careful estimates and reports which have been made, it is estimated that the total property contains not less than 4,140,000 tons of ore, which might be won within a period of about 35 years, yielding a net profit of 2s. per ton.

It is estimated that about 80 acres on the land side might be worked without the aid of pumping power, and a yield of 800,000 tons of ore might thus be obtained.

The regular outline of the surface, and the cropping out of portions of the upper strata at various points, indicate a large extent of regular pitching, which does not appear to be disturbed by "faults" or dislocations in the strata. In other mines hitherto worked in the immediate district with great success, the best quality of ore raised was got at the deepest points. The yield per 100 parts may be estimated at from 35 to 40 parts of pure iron.

An analysis made by Messrs. Westwood and Day, of Birmingham, of a small parcel of ore taken from the deep workings of the Easter Mine, at the nearest point to the Maxwell and Brooklyn, gave a result of 46 per cent. of metallic iron. The admixture it contains of calcareous matter assists as flux. The ore is very valuable in mixing with the clay iron ores of South Wales.

A branch of the Severn and Wye Railway runs over a portion of the property, connecting the mine directly with all the furnaces of the Forest of Dean district, also with the shipping port of Lydney, and with the Great Western Railway at the same place. The most favourable spot for sinking pits for working this property is within 250 yards of this line.

The prospective facilities of transit are very favourable and of great importance, and consist of a direct communication with the great iron-making districts in South Wales, by the proposed Worcester, Forest of Dean, and Monmouth Railway, which line will pass over the centre of this property. The completion of this line will save the whole of the expense now incurred in delivering the ore along the Severn and Wye tramroad to Lydney for the South Wales consumption, and at the same time reduce the distance to South Wales fully one-half.

It will also bring the Forest ore in much closer proximity to the iron furnaces of South Staffordshire, where it will always find a ready market.

Plans of the property, and reports thereon of eminent mining engineers, may be seen at the offices of Messrs. FUSSELL and PRICHARD, Solicitors, Crown-street, Bristol; and of Messrs. POOLE and HUGHES, Solicitors, 9, New-square, Lincoln's Inn, London, of whom further particulars and information may be had; and of the Auctioneers, Messrs. DENNING, SMITH, and Co., Shannon-court, Bristol, and Commercial-street, Newport, Monmouthshire.

ON SALE, THIRTY YARDS OF PUMP TREES, 16 inches

diameter, at 3s. 6d.; TWO SINGLE CLACK PIECES; ONE H-PIECE; TWO H-PIECES, with clack, 6s. per cwt.; TWO SUCTION PIPES, or WIND-BORES, one wrought-iron, the other cast; ONE SLIDE SUCTION PIPE, gland box, and all complete; a number of CLACK SHELLS and SEATINGS, 3s. 6d. per cwt.; ONE 15 in. RAM, with ram chamber, gland box, and all complete, £10. The whole are nearly new, and extraordinarily strong, and joints planed or bored. ONE 8 in. RAM PUMP, with working barrel, clack piece, and clack, all complete, stroke 4 ft. 6 in., new, and not been worked, 8s. per cwt. ONE PUMP, 10 in. working barrel, 6 ft. stroke, all brass, 10d. per lb. CLACK and CLACK PIECES, 6s. 6d. per cwt.; SIXTY YARDS of PUMP TREES, for same, 3s. 9d. per cwt.

MAYALL AND SEDDON, LOWER MOOR COLLIERIES, OLDHAM.

FOR SALE, cheap, a 16-horse power PORTABLE STEAM ENGINE, new, and with all recent improvements, guaranteed.

FIRST-CLASS PORTABLES, 5 to 25-horse power, on advantageous terms. Prize Medals awarded—Hamburg, 1853; Paris, 1857, &c.

FOR SALE, EIGHT very superior SECONDHAND PORTABLE STEAM ENGINES, 5 to 10-horse power, by eminent makers, in excellent condition.

BARROWS AND STEWART, ENGINEERS, BANBURY.

ASSAY OFFICE AND LABORATORY,

No. 2, CROWN CHAMBERS, CROWN COURT,

THREADENEEDLE STREET,

CONDUCTED BY W. T. RICKARD, F.C.S., &c.

(Late MITCHELL and RICKARD).

Assays and analyses of every description of mineral and other substances

manures, &c.

RAILWAY WAGON WORKS, BARNSELY.
MESSRS. G. W. AND T. CRAIK
 ARE PREPARED TO
 SUPPLY COAL AND COKE WAGONS
 OF EVERY DESCRIPTION,
 Either for cash, or by deferred payments through wagon-leasing companies.
 WAGONS PROMPTLY REPAIRED.

TANK LOCOMOTIVES,
 FOR SALE OR HIRE.
HENRY HUGHES AND CO.,
 LOUGHBOROUGH.

THE BEVERLEY IRON AND WAGON COMPANY
 (LIMITED),
MANUFACTURERS OF RAILWAY WAGONS, WHEELS
 AXLES, LORRIES, CARTS, WOOD WHEELS, &c.,
 IRONWORKS, BEVERLEY, YORKSHIRE.

IMPROVED APPLICATION OF WATER POWER.
THE TURBINE.
MAC ADAM BROTHERS AND CO., ENGINEERS, SOHO
 FOUNDRY, BELFAST, after twenty years of experience, have brought
 their IMPROVED TURBINE to great perfection.
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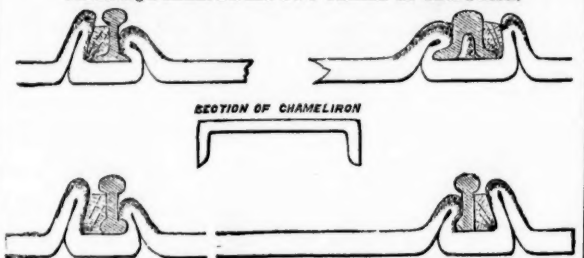
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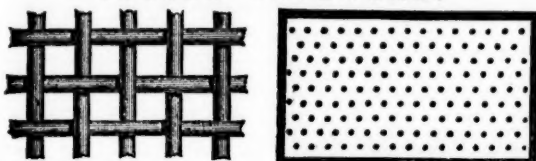
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Fig. 84. Gwynne & Co's Double-Acting Pumping-Engine. As supplied to the Admiralty Graving Docks, Malta, to lift from 200 to 2000 gallons per minute. The engine is of inverted vertical cylinder without valves or der construct-packing, and raise a ton of water, and considerable quantity barrel and piston of water. They will lift sand, mud, or metal, and the grit without choking, whole very and require only very strong and inexpensive repairs. compact.

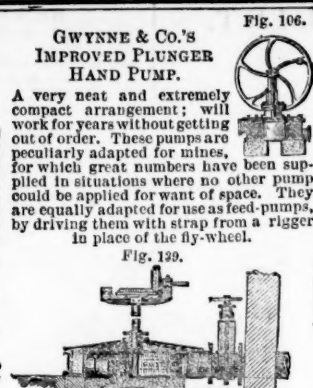


Fig. 106. Gwynne & Co's Improved Turbine Water-Wheel. Compact, easy to erect, economical, simple, and perfectly adapted to all situations. Made of every power from 1 to 300 horse. These turbines are adapted for every class of work. Prices on receipt of particulars.

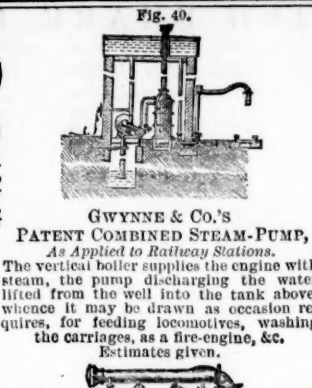


Fig. 40. Gwynne & Co's Patent Combined Steam-Pump. As Applied to Railway Stations. The vertical boiler supplies the engine with steam, the pump discharging the water lifted from the well into the tank above, whence it may be drawn as occasion requires, for feeding locomotives, washing the carriages, as a fire-engine, &c. Estimates given.



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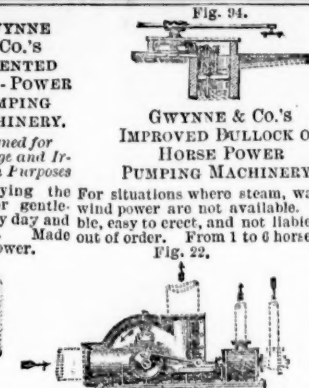


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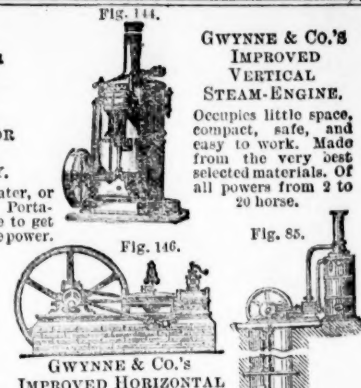


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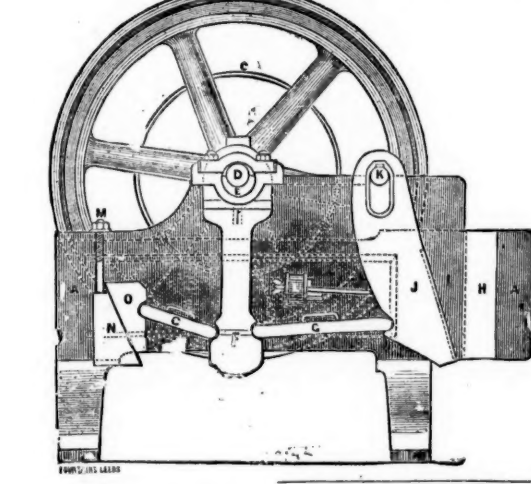
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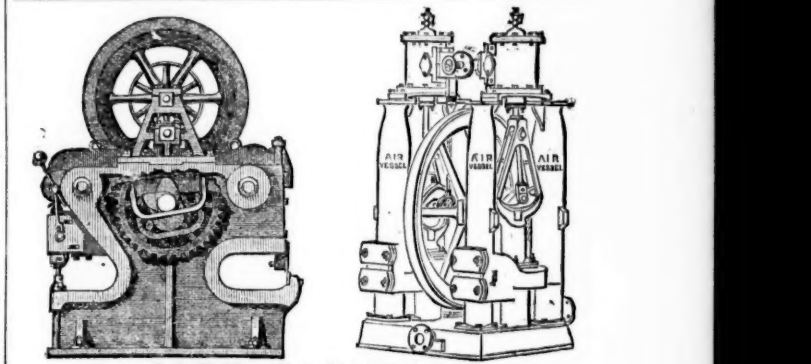
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South Condurow	28s .. 30s
West Caradon	4s .. 4s
West Chilworth	4s .. 4s
Buller	17s .. 18s
Wheal Grenville	52s .. 54s
Wh. Kitty (St. Agnes)	5s .. 6s
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Wheal Uny	3s .. 3s
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PROSPECTUS.

The object of this company is to purchase the lease of and work a valuable tin mine, called South Polberrow, situated in the parish of St. Agnes, one of the best tin districts in the county of Cornwall.

The sett is bounded on the west by Great Wheal Charlotte, which yielded large profits; on the east by Polbreen; and on the north by Wheal Friendly, Wheal Trevenna, Polberrow, Wheal Kitty, and other celebrated tin mines. It is traversed by the productive lodes of Polbreen and Wheal Kitty, the latter paying regular dividends, and lies parallel with the enormously productive lodes of Polbreen, and other rich mines of the district.

In this sett there are several well-defined veins or lodes, all of which have produced large quantities of tin, and afford evidence of a highly mineralised property. A fine cross-course is in immediate proximity to that part proposed to be opened up, which can be rendered advantageous for cross-cutting to the various lodes.

A shaft has already been sunk 40 fathoms deep, which communicates with an adit driven on the course of one of the lodes, and which has been extended about 50 fathoms into the sett from the eastern boundary. In this adit for about 30 fathoms in length, the lode has been taken away on tribute, the excavations even reaching the surface.

The mine has been inspected by practical agents, whose reports fully warrant the shareholders in expecting most satisfactory results.

The peculiar advantages presented by this mine, are—first, its geological position, being situated on the junction of granite and killas, one of the most important features in the mineral-bearing districts of Cornwall. Four-fifths of the rich mines in the county are similarly placed, as shown in the following table.

MINES SITUATE ON THE JUNCTION OF GRANITE AND SLATE.

Name of Mine.	Paid.	Dividends.
Botallack	£ 18,250 0 0	£ 105,500 0 0
Carn Brea	30,000 0 0	280,500 0 0
Dolcoath	46,137 5 0	316,684 0 0
East Basset	18,944 0 0	67,512 0 0
Providence	11,568 13 4	98,700 0 0
St. Ives Consols	10,105 0 0	461,070 0 0
South Caradon	640 0 0	313,600 0 0
South Frances	9,293 0 0	185,838 16 0
Treacross	54,000 0 0	123,300 0 0
Tresavean	4,080 0 0	449,064 0 0
West Basset	10,500 0 0	160,200 0 0
Wheal Basset	2,624 0 0	326,912 0 0
Wheal Buller	14,464 0 0	297,824 0 0

Total

Total dividends

Paid-up capital

Balance

Profits in excess of paid-up capital, £2,296,212 17s. 8d., irrespective of present market value of shares.

Secondly.—The lodes traversing the sett have proved very rich in the mines immediately to the east and west of the boundary; while the workings in the grant have already opened upon good courses of tin, similar to those found in the mines to the east and west at the same depth, thus placing its value beyond doubt.—Thirdly. The mine can be worked to a considerable extent without the aid of expensive machinery, there being sufficient water power for all practical purposes; and the rich lodes can be opened upon by the driving of adits about 60 fathoms deep, an advantage seldom met with in Cornwall.—Fourthly. It is within two miles of the shipping port of St. Agnes, rendering the shipment of ore easy, and the carriage of materials cheap.

From what has been stated, it is obvious that the sett contains the great elements of success; it is surrounded by rich mines; there are several lodes of an unusually rich description traversing its entire length; the produce of tin has been rich and profitable, and there is a certainty that a further small outlay, would place it amongst the richest mines of the county.

Some fine specimens of the ore may be seen at the offices of the company.

Prospectuses, plans, forms of application for shares, and every information, may be obtained of the secretary.

ASSAYS AND ANALYSIS.—MR. JOSEPH GREEN, for the past eighteen years professional Assayer to the Chester Goldsmiths' Company, UNDERTAKES THE ASSAYING AND ANALYSIS OF EVERY DESCRIPTION OF MINERAL.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divn.	Per share.	Last paid.
1500 Alderley Edge, c, Cheshire	10 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
200 Botallack, t, c, St. Just	91 5 0 ..	250 ..	240 250 ..	628 5 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
4000 Brookwood, c, Buckfastleigh	1 11 0 ..	..	..	10 12 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1000 Broadford, t, Cardigan	12 0 0 ..	..	..	10 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
6000 Bwile Consols, s, t, Cardigan	4 0 0 ..	3 ..	..	10 5 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
5000 Cashwell, t, Cumtland	2 10 0 ..	..	..	15 15 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
916 Cargill, s, t, Newlyn	15 5 0 ..	..	..	15 15 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1280 Chanticleer, t, Flint	0 7 8 ..	..	..	0 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
2450 Cook's Kitchen, c, Illogan	19 14 9 ..	17s ..	15 16 ..	2 4 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
867 Craggawase and Penkell, t .....	..	..	..	2 5 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
607 Cwm Erfin, t, Cardigan	7 10 0 ..	..	..	30 30 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
128 Cwynystwith, t, Cardigan	60 0 0 ..	..	..	285 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
280 Derwent Mines, s, t, Durham	300 0 0 ..	..	..	177 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1624 Devon Gt. Consols, c, Tavistock	49 10 0 ..	..	..	1128 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
358 Dolcoath, c, t, Camborne	128 17 6 ..	500 ..	475 500 ..	2 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
6144 East Caradon, c, St. Cleer	2 14 6 ..	7s ..	7 7s ..	14 11 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
300 East Darren, t, Cardigan	32 0 0 ..	..	..	165 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
128 East Pool, t, c, Pool, Illogan	24 5 0 ..	..	..	457 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1906 East Wheal Lovell, t, Wendron	3 9 0 ..	9s ..	9 9s ..	4 11 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
2800 Foxdale, t, Isle of Man	25 0 0 ..	..	..	73 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
5000 Frank Mills, t, Christow	3 18 6 ..	3s ..	3s 4 ..	8 9 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3550 Gwanton, c, Tavistock	3 10 6 ..	..	..	10 5 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
15000 Great Laxey, t, Isle of Man	5 0 0 ..	20 ..	19 20 ..	10 5 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3000 Great Northern Manganese	5 0 0 ..	..	..	..	10 0 0 ..	10 0 0 ..	10 0 0 ..
5908 Great Wheal Vor, t, c, Helston	40 0 0 ..	18 ..	17 18 ..	14 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1024 Herodfoot, t, near Liskeard	8 10 0 ..	46 ..	44 46 ..	49 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
165 Levant, c, t, St. Just	10 8 1 ..	..	..	1099 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
400 Lisburne, t, Cardigan	18 15 0 ..	..	..	515 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3000 Maes-y-Safn, t, Flint	20 0 0 ..	..	..	4 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
9000 Marke Valley, c, Cardigan	4 10 6 ..	9 ..	8s 9 ..	5 4 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3000 Minera Boundary, t, Wrexham	1 0 0 ..	..	..	248 13 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1800 Minera Mining Co., t, Wrexham	2 0 0 ..	..	..	..	10 0 0 ..	10 0 0 ..	10 0 0 ..
30000 Mining Co. of Ireland, c, t, c, t	7 0 0 ..	..	11 11s ..	..	10 0 0 ..	10 0 0 ..	10 0 0 ..
40000 Mynydd Iron Ore	3 5 0 ..	..	..	0 11 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
2000 North Levant, t, c, St. Just	10 12 0 ..	12 ..	11s 12 ..	0 5 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
200 Parys Mines, c, Anglesey	50 0 0 ..	..	..	162 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
5000 Penhale, t, St. Agnes	3 0 0 ..	..	..	0 2 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
12800 Prince of Wales, t, Calstock	0 12 6 ..	1s ..	24s 26s ..	0 8 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1120 Providence, t, Uny Lelant	10 6 7 ..	42 ..	37s 40 ..	0 13 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
512 South Caradon, c, St. Cleer	1 5 0 ..	..	..	612 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
6000 South Caradon, c, St. Cleer	3 6 0 ..	..	..	0 14 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
937 South Wh. Crofty, c, Illogan	24 10 0 ..	13s ..	13 13s ..	1 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
496 So. Wh. Frances, c, Illogan	18 18 9 ..	17 ..	16 17 ..	374 18 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
400 Summer Hill, t, Mold	3 18 6 ..	..	..	2 5 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
6000 Tincroft, c, t, Pool, Illogan	9 0 0 ..	20 ..	18 19 ..	20 11 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
20000 Trumpet Cons., t, Helston	11 10 0 ..	22 ..	20 22s ..	8 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
12000 Van, t, Llandudno	4 5 0 ..	26s ..	26s 4s ..	33 7 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3000 W. Chilworth, t, Perranzabuloe	10 0 0 ..	52 ..	50 52 ..	0 2 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
5000 West Godolphin, t, c, Breage	10 0 0 ..	..	..	1 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
15000 West Wheal Frances, t, Illogan	46 15 0 ..	58 ..	54 56 ..	67 15 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
400 W. Wheal Seton, c, Camborne	107 0 0 ..	210 ..	185 195 ..	628 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
512 Wheal Basset, c, Illogan	5 2 6 ..	..	70 75 ..	632 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1094 Wheal Friendship, c, Tavistock	20 0 0 ..	..	..	300 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
512 Wheal Jane, s, t, Kea	10 15 0 ..	47s ..	42s 47s ..	23 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
4295 Wheal Kitty, t, St. Agnes	5 4 6 ..	6s ..	6 6s ..	3 13 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
1024 Wheal Mary Ann, t, Menheniot	8 0 0 ..	17s ..	16s 17s ..	403 3 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
80 Wheal Owles, t, St. Just	70 0 0 ..	..	..	254 15 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3000 Wheal Seton, t, c, Breage	18 10 0 ..	7s ..	65 70 ..	2 2 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
3000 Whitwell Lead, Clitheroe	0 5 0 ..	..	..	1 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
17000 Wicklow, c, t, Wicklow	2 10 0 ..	..	11s 11s ..	49 0 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divn.	Per share.	Last paid.
35000 Alamillos, t, Spain	2 0 0 ..	2 ..	1s 1s ..	0 6 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
20000 Australasian, c, Australia	7 7 6 ..	..	..	0 1 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
15000 Anglo-Argentine, c, Argentina	7 7 6 ..	..	..	3 17 6 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
30000 Central American Association	1 10 0 ..	..	..	..	10 0 0 ..	10 0 0 ..	10 0 0 ..
76162 Don Pedro North del Rey	0 14 0 ..	4s ..	4s 4s ..	1 0 3 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
70000 English and Australian, c, t	2 10 0 ..	..	..	..	10 0 0 ..	10 0 0 ..	10 0 0 ..
25000 Fortuna, t, Spain	2 0 0 ..	..	1s 2s ..	1 14 10 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
20000 Gen. Mining Assoc., Nova Scotia	20 0 0 ..	..	..	23 10 0 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
10000 Gonnesa, t, Sardinia	5 0 0 ..	..	..	10 percent ..	10 0 0 ..	10 0 0 ..	10 0 0 ..
10000 Kapunda Mining Co., Australia	1 0 0 ..	..	2s 3 ..	11 13 4 ..	10 0 0 ..	10 0 0 ..	10 0 0 ..